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MARKREE OBSERVATIONS OF DOUBLE STARS. BY W. DOBERCK, PH.D., M.R.I.A., F. R. MET. S. Member of the Astronomischen, and Corresponding Member of the Deutschen Meteorologischen Gesellschaft, Corresponding Member of the Société des Sciences Naturelles de Cherbourg, Officier de l'Ordre du Dragon d'Annam, Director of the Hong-Kong Observatory.

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XIII.

MARKREE OBSERVATIONS OF DOUBLE STARS.

By W. DOBERCK, Ph. D., M.R.I.A., F. R. Met. S. Member of the Astronomischen, and Corresponding Member of the Deutschen Meteorologischen Gesellschaft, Corresponding Member of the Société des Sciences Naturelles de Cherbourg, Officier de l'Ordre du Dragon d'Annam, Director of the Hong-Kong Observatory.

[Read June 24, 1889.]

Most of the observations were made by aid of a filar micrometer, constructed by Merz about fifty years ago. Nearly all the measures were made in an illuminated field. The lamp was hung on the side of the telescope, and the light was reflected towards the eye-piece from a gilt ring. Camphorated sperm-oil burned for nearly six hours without having to trim the wick. The illumination was more uniform with a red glass; but this was used only in case of very faint stars, as the field was then very dark. At first there was no means of illuminating the field, so that the wires had to be illuminated, which I found very unsatisfactory.

The position-circle is four inches in diameter, divided to half degrees, and may be read to single minutes by aid of opposite verniers; but only one of these was used, as the opposite readings never differed more than three minutes.

The micrometer is furnished with two opposite screws, but only one of them carries a divided head. Each carries one wire. A third wire perpendicular to the others was at once removed. At first I did not always succeed in keeping the stars between the wires when measuring the angles, but observed them alternately on either side. Subsequently the images were generally bisected. The difficulty lies with the driving clock and the slow-motion, which is effected by a V screw pressed by a spring into the circumference of the hour-circle, in which V teeth are

cut. The clock is regulated by a revolving governor consisting of two heavy balls, attached to the ends of a horizontal bar, which recede from the vertical when the clock comes up to its speed, and rub two strong brass springs against a carefully levelled plate. The rate had to be frequently adjusted by bending these springs.

The magnifying powers of the eye-pieces were determined by aid of Dolland's dynameter. They were: 100 (*i. e.* 135) with a field of 7′·8, 200 (219) with 7′·7, 300 (299) with 6′·7, 400 (397) with 5′·4, 500 (498) with 4′·8, 600 (587) with 3′·9, and 800 (813) with 2′·5. I procured also a microscope, on which either of the eye-pieces could be screwed, and then their power is doubled, but the definition was not very good. In the focus of the eye-piece of the microscope were fixed two spider-lines, distant apparently 0·122 of a revolution of the screw. The periodic errors of the screw were investigated by sliding the microscope along, and measuring this distance successively, commencing with each tenth of a revolution. Care was taken to commence a series alternately with 0·0 and with 0·5, the head being divided into hundredths, and a short rest was taken after ten readings. In the following Table the differences between the mean of the measures of the respective parts of the screw and the mean of all the readings made on the same day are exhibited. The first series was made on the 14th February, 1877, with a power of

	I.	II.	III.	IV.	V.	Mean.
0	+ ·001	+ ·002	− ·001	·000	·000	+ ·0004
10	+ ·001	·000	·000	·000	·000	·0000
20	+ ·001	+ ·002	− ·002	+ ·001	− ·002	·0000
30	+ ·002	− ·004	− ·001	− ·002	− ·001	− ·0012
40	+ ·001	·000	+ ·001	·000	+ ·001	+ ·0006
50	+ ·001	+ ·001	+ ·001	+ ·002	+ ·002	+ ·0014
60	− ·002	− ·001	+ ·001	·000	·000	− ·0006
70	− ·001	− ·002	·000	·000	·000	− ·0004
80	− ·002	+ ·001	− ·001	− ·003	·000	− ·0010
90	·000	+ ·001	+ ·001	− ·001	+ ·001	+ ·0004

600 on the microscope between 35·0 and 46·0, the second on the 17th with 800 from 36·0 to 45·0, the third on the same day with 800 from 36·5 to 44·5, and the fourth on the 28th with 800 from 36·5 to 44·5. The fifth series is the mean of observations made on the 21st March and the 7th April from 39·0 to 41·0. It is seen that the periodic errors are insensible. The screw was always moved against the spring.

The wires were then replaced by a pair, whose apparent distance was 1·013 of a revolution. Their distance was measured by aid of each single turn of the screw between 15·0 and 66·0. The following Table exhibits the average difference corresponding to every five revolutions between the distance measured and the mean of the respective series. D exhibits the results obtained by moving the screw forwards (scale numbers increasing), and R those obtained by moving it backwards. The former are more accurate. The first D series was obtained on the 16th June, 1877, the second on the same day, the third on the 28th August, and the fourth on the 8th January, 1878. The two first R series were obtained on the 17th June, 1877, the third on the 28th August, and the fourth on the 6th January, 1878:—

	D.				R.				Mean.
	I.	II.	III.	IV.	I.	II.	III.	IV.	
20	+ ·003	·000	− ·003	− ·002	− ·004	− ·006	− ·001	− ·003	− ·002
25	− ·001	+ ·001	− ·003	− ·002	+ ·001	− ·002	− ·002	− ·005	− ·002
30	− ·002	− ·001	·000	+ ·002	− ·002	− ·001	− ·002	− ·003	− ·001
35	− ·002	− ·003	− ·003	− ·001	+ ·001	+ ·002	·000	− ·003	− ·001
40	·000	− ·002	+ ·002	+ ·002	+ ·001	+ ·004	+ ·002	+ ·004	+ ·002
45	− ·002	− ·001	+ ·001	+ ·002	− ·005	− ·002	+ ·002	− ·001	− ·001
50	+ ·002	+ ·001	+ ·002	+ ·002	+ ·002	+ ·002	+ ·003	− ·001	+ ·002
55	+ ·004	+ ·003	+ ·003	+ ·001	·000	− ·001	+ ·001	+ ·003	+ ·002
60	+ ·002	+ ·002	+ ·001	·000	+ ·003	·000	+ ·001	+ ·001	+ ·001
65	·000	+ ·004	+ ·002	− ·001	·000	− ·001	− ·001	+ ·001	·000

The last turns of the screw appear to be a little shorter than the first, the effect of which is avoided by arranging the measures symmetrically about the middle of the screw. I have always been extremely careful in keeping such screws scrupulously clean. A hardly perceptible amount of oil was left on it. It was dusted with a fine camel-hair brush, and often passed along the whole scale. The micrometer was occasionally taken asunder and cleaned, and while not in use it was protected by a silk cover and by an oiled calico bag. That there was no perceptible loss in the screw was ascertained by moving the screw extremely little to alternate sides, and seeing under a high power that the wires moved together with the divided head. Thus one day I found with a power of 1600 that the loss amounted to 0·021 revolutions; but this was partly due to the sliding parts of the micrometer, which rubbed against each other and moved the fixed wire. With so high a power the personal error is imperceptible, and if the micrometer were constructed in fewer pieces the loss should be still further diminished. The thickness of the wires was at the same time found to be 0″·250. Care was taken to have the spring properly tightened. If it is too tight it makes the observations uncertain, owing to the elasticity of the brass; and if it is too loose, it causes loss in the screw, and irregularities in the motion of the sliding parts.

I began by observing double distances, but had to give this over for single distances, and I then determined the coincidence frequently. This was found to be the same in any angle of position. With a power below 400 it is not well determined, nor when the field is imperfectly illuminated. The probable error of a double coincidence with 400 was 0·003; with 500 or 600 it was 0·002, and with higher powers it was 0·001. As soon as the apparatus was in comparatively good working order the double distances were resumed, several being taken in the beginning, but generally only one double distance later on. Experience shows that there is not much gained by multiplication of difficult observations, because the single measures become less accurate the more are made. It is better to make a few, but with the utmost care. I used to keep

the fixed wire across one of the stars with my left hand, and bisected the other by aid of my right hand.

The value of one revolution of the screw was obtained in 1882 by comparing measures of differences of declination of stars in the cluster h Persei, with the results obtained by Krüger in 1862. The separate results expressed in turns of the screw are exhibited in the following Table, in which the stars are numbered as in Krüger's paper (Der Sternhauffen h Persei. Beobachtungen desselben am Bonner Heliometer nebst deren Berechnung, 1864):—

1882.	Hour Angle.	Temp.	Nos. 24–25.	Nos. 25–4.	Nos. 4–2.	Nos. 2–1.	Nos. 1–6.	Nos. 6–13.	Nos. 13–20.	Nos. 20–5.	Sum.
	h	°	R	R	R	R					R
Sept. 13	−0·3	35·1	18·699	13·300	15·842	13·912	..	..	..	..	113·761
							R	R	R	R	
,, 25	−1·1	37·0	..	..	..	..	14·440	13·768	11·743	12·057	..
,, 25	−0·3	36·0	·658	·310	·860	14·010	·427	·754	·622	·039	·680
Oct. 12	−0·8	43·0	·650	·357	·752	14·033	·472	·780	·710	·120	·874
,, 20	−1·4	42·0	·704	·361	·553	14·033	·522	·733	·710	·046	·662
,, 24	−1·5	32·5	·736	·350	·701	14·018	·495	·823	·740	·095	·958
,, 26	−0·5	34·0	·668	·368	·693	13·993	·507	·795	·779	·059	·862
,, 28	−0·7	30·1	..	..	·602	14·000	·580	·773	·779	·057	·806
,, 30	−0·4	39·0	·691	·324	..	..	..	..	..	..	..
,, 30	+0·9	36·0	·680	·438	·505	13·599	·581	·724	·895	11·979	113·401
Dec. 7	−1·5	34·0	·676	·463	·460	14·074	·697	·749	·873	12·033	114·025
Means	..	..	18·685	13·363	15·663	13·964	14·525	13·766	11·761	12·054	113·781

A correction for refraction having been applied, the value of a revolution was calculated from the differences in declination between Nos. 24

and 1, Nos. 1 and 5, and Nos. 24 and 5. Those differences and the resulting scale-values are exhibited in the following Table:—

1882.	Nos. 24–1.	Value.	Nos. 1–5.	Value.	Nos. 24–5.	Value.
	R		R		R	
Sept. 13	61·783	8″·717	52·008	8″·739	113·761	8″·727
,, 25	·638	·706	51·842	·767	·680	·733
Oct. 12	·792	·712	52·082	·727	·874	·718
,, 20	·651	·732	·011	·739	·662	·735
,, 24	·805	·710	·153	·715	·958	·712
,, 26	·722	·722	·140	·717	·862	·720
,, 28	·617	·736	·190	·709	·806	·724
,, 30	·222	·793	·179	·711	113·401	·755
Dec. 7	·673	·729	·352	·682	114·025	·708
Means,	—	8″·729	—	8″·723	—	8″·726

With the definitive scale-value 8″·726 I converted the differences in apparent declination exhibited above into seconds of arc, corrected these for refraction, and determining the zero point from Krüger's results, I reduced to mean declination for 1882·0. The results are exhibited in the following Table, where also Krüger's results reduced to the same epoch are shown. The differences prove that the internal changes that have taken place in this cluster during the last twenty years are nearly insensible.

MEAN DECLINATIONS FOR 1882·0.

No.	Krüger.	Doberck.	K.–D.
24	56°44′18″·96	19″·05	– 0″·09
25	41 36 ·13	35 ·96	+ ·17
4	39 39 ·36	39 ·28	+ ·08
2	37 23 ·02	22 ·67	+ ·35
1	35 20 ·51	20 ·75	– ·24
6	33 13 ·77	13 ·88	– ·11
13	31 13 ·53	13 ·75	– ·22
20	29 31 ·16	31 ·04	+ ·12
5	27 45 ·78	45 ·83	– ·05

Before, however, the above-described micrometer was available a number of observations were made with an old wire micrometer by Troughton and Simms, the circle of which is divided on the rim according to Sir W. Herschel's method of counting positions. There are a great number of different wires in this micrometer, and distances could not be measured with it because the wires dragged—a defect that could not be cured. The wire micrometer, used on the Lee Equatoreal in Hong-Kong since 1883, is of nearly the same construction. In 1878, some distances were measured with Amici's prismatic micrometer. (*Vide* Astr. Nachr., No. 2199).

The Markree Observatory, at which most of the observations were made, is situated in the county of Sligo, near a river, among surrounding higher ground. The telescope was erected in 1834 on a solid limestone foundation. Both tube and mounting are made of cast-iron. It is extremely heavy, which insures steadiness of the instrumental constants, but renders the work slow and hard in proportion. The entire apparatus, including the clockwork, is exposed under the open sky to the vicissitudes of the rough climate, which but seldom favours delicate astronomical observations. It is surrounded by a wall 16 feet high, which protects the observer from the wind; but even a gentle breeze is able to shake the tube, as it acts unimpeded on the upper half of the tube. The want of a roof is felt, when it is within short intervals alternately clear and rainy.

The object-glass was made by Cauchoix of Paris nearly sixty years ago, and appears to be well preserved. The effective aperture is 13·2 inches, and the focal length about 25 feet. The lenses were taken asunder and cleaned in 1875, and the inner surface was dusted a couple of times in the course of the following eight years. The figure was tested by looking at a star with a power of 600, with the aperture reduced to a half, and subsequently with a central disc corresponding to that opening; but there was no appreciable difference between the respective focal lengths, though of course the outer half does not give so good definition as the inner. With the same power, a motion of a few hundredths of an inch is sufficient to throw the image out of focus; but when

the definition is bad, the uncertainty is much greater. When the eye-piece is pushed in about a third of an inch, the middle of a white star is light sap-green; and when the eye-piece is drawn out as much, it is deep purple. The form of the cone of rays in these two positions is very irregular, and not quite the same; but this is considered a severe test. Some slight inconvenience arises from stray light round the stars. Several diaphragms were employed to improve the definition, especially a slightly reduced hexagonal aperture, and also a central disc, or six circles placed in a circle. A diaphragm, once fixed, must be kept on the whole night. The object-glass, being greenish, may have influenced the colour-estimations, which were made in a dark field. The quality of the object-glass may, however, be inferred from the measures themselves.

The following Tables exhibit observations made of 366 different couples at 1576 different epochs. They contain 7969 measures of angles and 2656 of distances made during a period of about ten years. A number of measures of objects that could not with certainty be identified at this distance of time, and of some new couples—mostly very distant ones accidentally picked up—have had to be excluded.

The first column exhibits the name of the star or number in Hevelius's or Bode's lists. The second exhibits the number according to W. Struve or O. Struve (the latter in brackets), or other authorities. The third and fourth columns exhibit the approximate mean right-ascension and declination for 1875. The fifth column exhibits the epoch, the sixth the position angle, the seventh the mean of the differences, all taken with the positive sign, of the single measures from the mean published in the preceding column, from which the probable error is easily obtained by aid of the figures in the eighth column, which exhibits the number of pointings. The ninth column exhibits the distance in seconds of arc uncorrected for refraction, the tenth the number of measures, each double distance being counted as two. The eleventh column exhibits the hour-angle. The twelfth column exhibits the definition and steadiness as follows—v.g. very good, g. good, r.g. rather good, m. moderate, r.b. rather bad, b. bad, v.b. very bad. The thirteenth column exhibits the magnifying power to the nearest hundred. This power is slightly different for different

observers using the same eye-piece, and varies even for each observer according to the state of his eyes. A, signifies Amici's, and T, Troughton's micrometer. The fourteenth column exhibits the observed magnitudes; or if that was not noted, the magnitude according to other observers, generally Struve, placed in parentheses. The fifteenth column exhibits the colours, with the following abbreviations—pl. pale, wh. white, whs. whites, yelsh. yellowish, straw. straw-coloured, yell. yellow, yells. yellows, gold. golden, orng. orange, redsh. reddish, rd. red, grnsh. greenish, blsh. bluish, bl. blue, bls. blues, viol. violet, pur. purple. The last column contains various abbreviations—? signifies that it is doubtful whether the companion was seen, it being merely suspected, so that the observation should be rejected if it does not agree with the other available observations. H, C, 6 signifies that respectively a hexagonal diaphragm, or one consisting of a central disc or six circles, was used. R and I signify that respectively a red field or illuminated wires were used. F means that the companion was very faint. The atmospheric circumstances are intimated as follows—c. detached clouds, o. overcast with thin clouds generally cirro-stratus, f. fog, d. dew on object-glass, b. breeze.

In conclusion, my warm thanks must be expressed to Colonel Cooper for his kindness during the years I spent at Markree.

TABLE OF OBSERVATIONS MADE OF 366 DIFFERENT COUPLES AT 1575 DIFFERENT EPOCHS.

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
Ceph. 316 B, .	2	0h 2m	+ 79° 1′	77.82	315°.77	6°.80	3	..	..	− 2.7	b, b	400	(6, 7)	whs.	? H
				79.04	316 .68	2 .13	4	..	..	+ 2.1	b, m	600	..	..	? H o
Ceph. 318 B, .	13	9	+ 76 17	77.82	181 .72	4 .40	3	..	..	− 2.5	b, rb	400	..	..	? H
				79.66	102 .60	5 .07	4	..	..	− 2.7	rg, rg	300	6.5, 7.5	yelsh., yelsh.	
	18	10	+ 66 56	79.01	87 .63	2 .58	4	1″.36	2	+ 4.7	rb, rg	400	(8, 9)	yelsh., whs.	F c
	23	11	− 0 22	76.83	348 .67	0 .90	5	..	..	− 1.2	m, g	500	(8, 10)	..	F
				.95	348 .82	0 .82	6	..	..	+ 0.4	b, g	600	..	..	F
	[6]	13	+ 37 29	79.74	17 .00	0 .32	4	62 .09	2	− 0.4	rg, rg	200	7.5, 9.5	orng., pur.	R
				80.80	17 .24	0 .13	4	62 .43	2	− 0.3	vb, m	200	..	..	
				.88	17 .04	0 .30	4	62 .08	2	− 1.3	m, rg	200	7.3, 8.7	..	c
	59	41	+ 50 45	82.81	147 .73	0 .95	4	..	..	− 0.4	m, rg	200	(7, 8)	whs.	
				.82	147 .64	1 .08	5	2 .10	4	− 0.8	b, m	400	..	yelsh., whs.	H
				.87	148 .88	0 .43	4	2 .26	4	+ 2.5	rb, rg	400	..	whs.	c
η Cass., . . .	60	41	+ 57 9	75.93	147 .90	1 .70	12	..	..	− 0.4	..	T	..	orng., viol.	
				.94	147 .53	1 .10	12	..	..	− 1.6	..	T	..	..	
				77.71	149 .52	0 .28	4	5 .54	2	− 1.1	rg, rg	600	..	gold, pur.	H
				.71	151 .83	0 .62	4	5 .58	2	− 2.1	m, rb	600	..	..	H o
				.72	150 .84	0 .55	4	5 .84	2	− 3.9	rb, rg	300	..	yell., viol.	H c
				.82	149 .76	0 .50	5	6 .21	2	− 3.8	rg, g	200	..	yell., pur.	H c
				.83	150 .01	1 .22	4	5 .71	2	− 2.3	b, rg	300	..	yell., pur.	H c
				78.85	154 .46	1 .25	4	5 .22	2	− 3.2	m, rg	200	..	yell., pur.	H c
				.88	155 .74	1 .17	4	5 .18	2	− 1.9	m, rg	300	..	..	c
				.90	156 .18	0 .10	3	5 .28	2	− 1.9	rg, g	600	..	yell., pur.	H f
				.90	154 .60	0 .85	4	5 .42	2	− 2.2	g, g	500	..	..	
				.94	154 .55	0 .40	4	5 .31	2	+ 2.8	rb, rb	200	..	..	o
				79.73	158 .38	0 .75	4	5 .13	2	− 0.3	rb, rg	300	..	yell., viol.	
				.78	157 .88	0 .92	4	5 .38	4	− 3.5	b, m	200	..	..	c
				.88	158 .66	0 .32	4	5 .13	2	+ 0.5	b, rb	200	5.5, 7.3	yell., viol.	c b
				80.05	160 .33	0 .67	4	5 .64	2	+ 2.0	m, m	200	..	..	c
				.69	161 .10	0 .83	4	5 .20	2	− 2.2	vb, rg	200	..	yell., pur.	H R
				.70	159 .70	0 .67	4	4 .79	2	− 2.8	rb, rb	300	..	yell., pur.	H R
				.80	160 .94	0 .45	4	5 .18	2	− 1.4	rb, g	200	..	..	
				.88	163 .65	0 .75	4	5 .45	2	+ 1.9	b, rb	200	..	yell., pur.	
				81.01	165 .10	0 .13	3	5 .32	2	+ 2.1	rb, m	300	..	yell., pur.	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
η Cass., . . .	60	0h 41m	+ 57° 9′	81.20	163°.17	0°.28	3	..	..	..	..	..	..	..	
				82.68	167 .52	0 .72	4	5″.21	2	− 1.3	g, g	400	..	yell., pur.	H
				.69	164 .73	0 .88	4	5 .06	4	− 1.3	m, m	600	..	..	H c
				.70	165 .15	1 .05	4	4 .96	6	− 0.5	rb, rg	300	..	..	H
				.81	165 .36	0 .75	5	..	..	− 0.7	g, g	600	..	..	H
				.82	166 .23	0 .67	4	5 .10	4	− 0.5	m, g	400	..	..	H
				.87	168 .71	0 .47	4	5 .34	4	+ 2.1	rg, g	400	..	..	c
	65	45	+ 68 10	79.04	36 .20	0 .67	3	2 .93	2	+ 2.3	g, g	200	(8, 8)	whs.	H
	67	45	+ 9 55	80.81	9 .82	2 .77	4	..	..	− 0.5	vb, m	200	8.0, 8.3	..	
				.84	5 .79	0 .40	3	2 .07	2	− 0.9	m, m	400	..	..	H c
				.89	13 .07	2 .03	4	2 .00	2	− 1.0	b, rb	200	7.8, 8.5	whs.	b
				82.87	9 .10	0 .50	3	1 .74	4	+ 0.6	b, rg	200	..	..	H
				.93	5 .23	2 .85	4	1 .65	4	− 1.0	b, rb,	600	7.7, 8.6	whs.	H c
36 Andr., . .	73	48	+ 22 57	76.02	355 .73	0 .74	10	..	..	+ 0.6	..	600	..	whs.	
				.03	361 .49	0 .84	7	..	..	0.0	b	300	..	..	
				.10	360 .14	1 .11	10	..	..	+ 1.9	vb, g	350	..	whs.	
				.10	359 .94	0 .94	10	..	..	+ 2.5	rg, g	500	..	ylsh. wh., grnsh. wh.	
				.13	358 .37	1 .77	10	..	..	+ 3.2	g, g	300	..	..	
				77.71	354 .94	0 .55	4	1 .10	2	− 0.8	rg, m	600	..	whs.	H
				.71	355 .89	0 .95	4	1 .23	2	− 1.3	rg, rg	400	..	..	H o
				.72	354 .87	1 .02	4	..	..	− 3.9	m, rb	300	..	yelsh., yelsh.	H c
				.87	354 .24	2 .05	4	1 .16	2	− 1.0	b, m	450	..	whs.	H R o
				78.85	359 .24	1 .67	4	..	..	− 1.6	rb, rb	400	..	pl. yells.	H c
				.90	356 .25	1 .00	4	1 .19	2	− 1.2	g, g	600	..	whs.	H f
				.90	357 .37	1 .30	4	1 .20	2	− 1.3	rg, g	200	..	pl. yells.	H
				.94	357 .48	1 .87	4	..	..	+ 1.2	m, m	300	..	yelsh., whs.	o
				79.66	362 .50	0 .45	4	..	..	− 2.4	rb, vb	200	..	yells.	c
				80.05	358 .85	1 .00	4	..	..	+ 1.3	rb, m	300	6.8, 7.2	pl. yells.	c
				.81	360 .84	1 .35	4	1 .25	2	− 1.6	g, rg	200	6.7, 6.9	yelsh., whs.	
				.84	360 .79	1 .00	3	1 .39	2	− 1.9	rg, rg	600	..	yelsh., whs.	H c
				81.01	358 .82	2 .25	6	1 .32	2	+ 1.5	b, m	300	6.8, 7.3	whs.	
				82.69	359 .90	1 .70	4	1 .24	4	− 1.7	rb, rb	600	..	yelsh., whs.	H c
				.81	2 .65	1 .10	4	..	..	− 0.6	g, rg	600	..	..	H
				.81	0 .75	0 .65	4	..	..	− 0.4	g, vg	600	..	yelsh., whs.	H
				.82	3 .80	0 .38	4	1 .32	4	− 0.3	rb, m	200	..	yelsh., whs.	H
				.93	3 .06	0 .87	4	1 .40	4	− 1.3	m, rg	500	..	..	H c
P. O. 251, . .	80	53	+ 0 7	80.80	314 .04	0 .23	4	20 .12	2	− 1.4	rg, g	200	6.5, 7.6	orng., bl.	
				.81	313 .89	0 .35	4	20 .22	2	− 0.3	b, rb	200	6.7, 7.7	orng., bl.	
				.88	313 .22	0 .52	4	19 .40	2	− 1.9	vb, rb	200	7.5, 8.5	orng., blsh.	o
	86	59	− 6 7	76.95	158 .78	0 .38	6	12 .18	4	+ 0.3	rb, g	600	(8, 9)	..	F
				.95	159 .04	0 .64	5	13 .11	5	+ 1.5	rb, rg	450	..	wh., viol.	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
Ceti. 160 B. .	91	1h 1m	− 2° 24′	79.90	321°.75	0°.45	4	4″.06	2	− 0.3	m, rg	200	7.2, 8.2	pl. yell., pur.	o
				.96	321 .95	0 .35	4	..	..	− 0.5	m, b	200	7.5, 8.8	yelsh. wh., viol.	b
				80.81	322 .96	0 .57	4	4 .06	2	− 0.1	rb, rb	200	6.8, 8.0	yell., viol.	
				.81	322 .12	0 .93	4	4 .03	2	− 0.2	m, m	200	6.8, 7.2	pl. yell., pur.	
42 Ceti., . .	113	13	− 1 9	76.83	346 .38	1 .00	6	..	..	− 1.1	b, g	400	(6, 7)	..	
				.83	343 .84	1 .08	10	1 .26	4	− 1.7	rb, m	500	..	wh., yell.	
				.93	348 .68	0 .38	5	1 .37	3	+ 0.2	rg, rg	500	..	..	f
	114	15	+ 72 13	79.74	359 .18	1 .77	4	3 .50	2	− 1.7	rb, rg	200	7.6, 11.0	yell., blsh.	R c
				.78	356 .98	3 .17	4	..	..	− 2.5	vb, m	200	6.5, 11.0	..	
				.90	352 .40	1 .25	4	3 .52	2	− 0.8	rb, m	200	7.5, 9.5	yell., bl.	o
ψ Cass., . .	117 AB	17	+ 67 30	75.92	104 .63	1 .07	12	..	..	+ 1.2	..	T	(4, 9)	..	
				.93	106 .25	0 .88	8	..	..	+ 1.3	..	T	..	..	
				76.04	106 .34	0 .54	10	..	..	− 0.4	b, b	300	..	..	b
				.10	105 .88	0 .92	10	..	..	+ 5.7	m, g	500	..	..	I c
				.13	106 .03	0 .63	10	..	..	+ 4.5	g, g	300	..	..	b
				.13	107 .79	0 .96	7	..	..	+ 4.9	g, g	500	..	..	
				.78	106 .44	0 .40	5	..	..	− 3.2	m, m	300	..	..	
	AC			76.10	258 .39	1 .77	10	..	..	+ 5.7	m, g	500	..	..	I c
				.13	254 .30	0 .16	4	..	..	+ 4.5	g, g	300	..	..	b
				.13	258 .44	0 .86	10	28 .48	4	+ 4.9	g, g	500	..	..	
	118	21	+ 82 40	79.90	73 .13	0 .17	4	11 .39	2	− 0.5	m, rb	200	..	..	c
				80.80	72 .14	0 .63	4	11 .50	2	+ 2.4	m, vg	200	7.7, 8.4	yelsh., pur.	
				.81	73 .64	0 .85	4	11 .55	2	− 2.4	b, g	200	7.5, 8.5	yelsh., pur.	
	127	25	+ 78 30	79.74	188 .28	0 .37	3	24 .35	2	− 2.3	m, rg	200	8.0, 9.0	whs.	R c
				.78	186 .78	0 .32	4	24 .20	2	− 3.2	rg, rg	200	7.2, 8.7	yelsh., blsh.	c
P. I. 123, . .	138	29	+ 6 59	76.03	28 .37	0 .98	3	..	..	− 0.5	vb	300	(7, 7)	..	o
				.03	30 .89	1 .06	10	..	..	+ 0.8	m	300	..	..	
				.10	27 .81	1 .89	10	..	..	+ 1.7	vb, g	500	..	whs.	
				.83	31 .14	1 .61	7	..	..	− 0.9	rb, g	400	..	..	
				.95	27 .84	1 .72	5	..	..	+ 0.3	vb, g	600	..	..	
				77.91	30 .84	1 .75	4	1 .35	2	− 1.2	rb, g	300	..	grnsh., whs.	c
				82.82	37 .50	0 .60	4	1 .38	4	− 0.9	rg, rg	400	..	whs.	H
				.87	36 .68	1 .97	4	1 .61	4	+ 0.2	rb, rg	200	..	whs.	
	142	33	+ 14 37	79.74	328 .95	0 .25	4	17 .87	2	− 1.0	rb, m	200	8.2, 8.7	whs.	c
				.91	329 .00	0 .30	4	17 .33	2	− 2.1	m, rb	200	..	..	
	[35]	36	+ 55 17	80.91	107 .62	1 .32	4	10 .10	2	− 1.8	vb, rg	200	6.0, 10.0	yelsh. wh., pur.	F R c
	171	42	− 2 2	79.90	159 .60	0 .25	4	29 .72	2	− 0.7	m, rg	200	7.9, 8.1	yelsh., whs.	c
				.96	159 .45	0 .40	4	..	..	− 0.9	rb, vb	200	..	..	b
				80.81	160 .02	0 .31	3	29 .59	2	− 0.4	m, m	200	8.1, 8.3	whs.	
	175	44	+ 20 30	80.81	343 .86	0 .87	4	14 .88	2	− 2.1	rg, m	200	7.5, 7.8	whs.	
				82.82	343 .40	0 .35	4	14 .65	4	− 0.9	m, m	200	..	whs.	H

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
γ Ariet, . . .	180	1h 47m	+ 18° 42′	75.92	359°.32	0°.63	12	..	..	− 1.0	..	T	..	..	
				.93	358 .90	0 .60	8	..	..	− 2.1	..	T	..	..	
				77.86	358 .34	0 .24	5	8″.58	4	− 2.1	vb, rg	400	..	whs.	H
				.90	359 .14	0 .25	4	8 .30	2	− 0.5	m, m	600	..	whs.	H
				.91	358 .47	0 .62	4	8 .40	2	− 0.5	b, b	300	..	whs.	
				79.89	360 .40	0 .55	4	8 .60	2	+ 0.9	m, rb	200	5.2, 5.4	yelsh., whs.	c
	183 Med.& C.	48	+ 28 12	80.05	165 .83	0 .87	4	..	..	+ 2.7	rb, vb	200	..	..	
				.81	163 .39	0 .90	4	5 .38	2	− 1.7	b, m	200	8.0	bl.	
				.84	163 .76	0 .43	3	5 .25	2	− 0.8	m, vg	200	8.5	pur.	H
	AB			80.81	13 .36	1 .10	3	..	..	− 1.9	vb, m	200	7.0, 7.0	pl. yells.	?
				.84	7 .72	2 .27	3	0 .54	2	− 0.9	vb, rb	400	7.4, 7.4	yelsh., whs.	H
	185	51	+ 74 55	79.74	31 .10	1 .45	4	1 .21	2	− 2.7	m, rg	300	7.7, 8.6	yelsh., —	R o
α Pisc., . . .	202	55	+ 2 9	75.92	327 .77	0 .91	10	..	..	+ 0.1	..	T	(3, 4)	..	
				.93	324 .57	0 .88	12	..	..	− 1.0	..	T	..	..	
				.99	327 .22	0 .56	10	..	..	+ 0.5	..	T	..	..	
				76.00	322 .45	0 .41	10	..	..	− 0.1	vg, vg	T	..	..	
				.09	325 .51	0 .45	8	..	..	+ 0.7	vb, vg	200	..	..	c
				.10	328 .24	1 .05	10	..	..	+ 1.6	vb, g	400	..	whs.	d
				.10	326 .03	1 .20	10	..	..	+ 1.0	m, g	300	..	..	
				.11	323 .21	1 .09	10	..	..	+ 1.0	g, g	300	..	yell., pl. yell.	
				.13	325 .75	0 .45	6	3 .81	4	+ 1.4	m, g	300	..	whs.	
				77.81	325 .44	0 .40	4	3 .20	2	+ 0.4	m, m	300	..	wh., redsh.	H o
				.83	322 .90	0 .32	5	3 .27	2	− 1.8	vb, b	200	..	yell., pl. yell.	H o
				.85	324 .62	0 .17	4	3 .24	2	− 1.0	b, b	300	..	pl. yells.	H
γ^2 Andr., . .	[38]	56	+ 41 45	77.71	103 .94	5 .50	4	..	..	− 1.2	b, m	600	(5, 6)	bls.	H
10 Ariet., . .	208	56	+ 25 19	77.81	41 .91	0 .97	4	..	..	− 0.9	vb, rb	500	(6, 8)	wh., viol.	H o
				.83	46 .79	4 .52	6	1 .32	2	− 0.6	b, rb	300	..	yell., viol.	H c
				.90	29 .52	3 .42	4	..	..	− 1.1	vb, vb	400	..	..	H o
				.91	46 .36	2 .82	5	1 .26	2	− 1.3	rb, g	300	..	pl. yell., redsh.	f
				78.08	43 .03	0 .87	4	1 .17	2	+ 1.3	b, rg	500	..	grnsh. yell., viol.	H
	204	57	+ 69 24	79.74	67 .37	0 .57	4	..	..	− 2.6	b, rg	300	..	..	R c
ι Triang., . .	227	2 5	+ 29 43	77.81	75 .39	0 .57	4	3 .93	2	− 1.0	rb, m	500	(5, 6)	yellsh., blsh.	H c
				.83	74 .97	0 .47	4	..	..	− 3.4	b, rg	300	..	yell., bl.	H c
				.83	75 .39	0 .37	4	3 .81	2	− 0.5	m, rg	300	..	orng., blsh.	H c
				.87	76 .64	0 .25	4	..	..	− 0.4	m, rg	500	..	whs.	H c
				.91	75 .91	0 .42	4	3 .99	2	− 1.2	rg, g	300	..	redsh., bl.	f
				82.82	77 .60	0 .70	4	3 .69	4	− 0.9	b, rb	200	..	yell., pur.	H
				.86	76 .88	1 .20	4	3 .72	4	+ 0.9	b, rb	200	..	..	H c
				.87	78 .08	0 .42	4	3 .93	2	+ 0.9	rb, rg	200	..	..	H c
				.87	78 .33	0 .70	4	3 .78	4	+ 1.5	b, rb	400	..	..	o
	223	6	+ 80 9	79.76	49 .20	3 .45	4	..	..	− 1.9	b, m	300	(8, 10)	..	R c

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
Andr., 259 B, .	228	2h 6m	+ 46° 55′	78.90	327°.90	1°.10	2	0″.47	2	− 2.1	rg, g	600	(7, 8)	whs.	H f
				.90	327 .52	0 .97	3	..	..	− 2.2	b, m	600	..	..	H
66 Ceti., . .	231	6	+ 3 1	76.03	230 .12	0 .39	10	..	..	− 1.1	m	300	(6, 8)	..	
				.09	230 .14	0 .80	10	..	..	+ 0.9	rg, g	200	..	yelsh., blsh.	
				.10	229 .11	0 .43	10	..	..	+ 2.0	b, g	200	..	..	o
	252	15	+ 66 17	79.74	43 .87	1 .67	10	2 .97	2	− 3.5	m, rg	200	(8, 11)	wh., —	R o
	257	16	+ 60 59	80.84	193 .92	3 .90	3	..	..	− 0.6	vb, rg	400	(7, 8)	..	? H
ι Cass., . . .	262 AB	19	+ 66 51	76.22	264 .02	1 .63	10	..	..	+ 4.9	m, g	400	(4, 7)	..	I
	AC			76.22	108 .47	0 .66	10	..	..	+ 4.9	m, g	400	(8)	..	I
84 Ceti., . .	295	35	+ 1 14	77.81	326 .29	0 .60	4	4 .77	2	0.0	m, m	300	(6, 9)	yelsh., red.	H o
				.83	324 .47	0 .33	4	4 .84	2	− 0.7	m, m	300	..	pl. yell., red.	H c
				.87	324 .42	0 .72	4	..	..	− 0.5	v, b	500	..	yell., red.	H Ro
γ Ceti., . . .	299	37	+ 2 42	75.97	293 .68	2 .00	12	..	..	− 0.9	..	T	(3, 7)	..	
				.99	291 .34	2 .02	10	..	..	+ 0.1	vg, vg	T	..	..	
				76.00	290 .95	0 .99	10	..	..	0.0	vg, vg	T	..	..	
				.02	291 .22	0 .89	10	..	..	− 0.4	..	450	..	yell., bl.	
				.10	292 .53	2 .88	10	..	..	+ 2.7	b, g	300	..	yelsh., viol.	
				.10	288 .02	1 .18	10	..	..	+ 1.6	rg, g	500	..	yelsh., viol.	
				.11	293 .33	1 .20	10	3 .22	6	+ 0.6	g, g	300	..	yell., viol.	
				.13	292 .39	1 .45	10	3 .66	4	+ 1.8	rg, m	300	..	yell., viol.	
				78.94	290 .15	2 .55	4	3 .16	2	+ 0.4	rb, rb	200	..	..	o
				82.93	292 .16	1 .25	4	3 .17	4	− 0.3	rg, rg	300	..	pl. yell., pur.	H c
114 B, Ariet, .	305	40	+ 18 52	76.03	321 .12	0 .33	10	..	..	− 0.3	g	300	..	yelsh., viol.	
				.03	321 .91	0 .78	10	..	..	− 1.3	g	300	..	..	
				.04	319 .96	0 .53	10	..	..	− 0.8	m, vb	300	..	grnsh., viol.	b
				.10	322 .48	1 .77	10	..	..	+ 1.5	m, g	300	..	whs.	
				.10	318 .95	1 .15	10	..	..	+ 1.8	vb, g	300	..	..	
				.10	320 .79	1 .05	10	..	..	+ 1.8	m, m	500	..	grnsh. yell., viol.	
				77.68	317 .77	0 .25	4	3 .64	2	+ 0.7	m, m	400	8.0, 8.0	orng., blsh.	C
	312	44	+ 72 24	79.01	19 .28	0 .62	4	3 .29	2	+ 2.3	rg, g	400	..	wh., redsh. wh.	R
				.04	21 .03	0 .50	3	3 .19	2	+ 3.3	g, g	200	8.0, 8.5, 9.5	pl. yell., blsh., blsh.	H
				.05	18 .05	0 .60	4	2 .96	1	− 0.5	rg, g	300	7.0, 7.5	pl. yells.	o
	317	47	+ 68 41	79.06	89 .97	0 .47	3	3 .28	2	− 0.7	rb, rg	300	..	yell., redsh.	
				.76	88 .23	0 .97	4	2 .96	2	− 6.3	rb, m	300	8.0, 10.5	..	R c
				.90	90 .23	1 .98	5	..	..	− 1.5	b, b	200	..	..	c
Ceph. 47 H, .	320	49	+ 78 56	79.74	229 .52	0 .67	4	4 .91	2	− 4.5	g, g	200	6.3, 8.8	orng., pur.	R c
ε Ariet., . .	333	52	+ 20 49	76.00	195 .16	1 .78	10	..	..	+ 0.4	vg, vg	T	(6, 6)	..	
				.02	200 .68	1 .35	10	..	..	0.0	vb	300	..	..	
				.03	197 .25	1 .42	10	..	..	− 1.2	m, g	300	..	..	
				.04	198 .25	1 .62	10	..	..	− 0.6	b, b	300	..	whs.	b
				.10	196 .77	1 .20	10	..	..	+ 1.9	m, g	300	..	whs.	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
ε Ariet., . .	333	2h 52m	+ 20° 49′	76.10	200°.63	1°.70	9	..	..	+ 2.0	m, m	500	..	..	I
				.11	197 .45	0 .99	13	1″.60	5	+ 2.1	g, g	300	..	pl. yells.	
				.13	199 .10	0 .87	6	1 .49	4	+ 2.2	g, g	300	..	..	
				.13	198 .72	1 .49	10	0 .96	3	+ 2.2	m, rg	450	..	whs.	c
	[50]	3 1	+ 71 7	81.01	213 .28	2 .02	4	..	..	+ 0.6	b, vg	300	(7, 7)	..	c
	345	1	+ 78 3	79.01	81 .05	0 .35	4	6 .92	2	− 2.4	rg, g	400	..	wh., bl.	R
				.74	83 .58	0 .32	4	6 .81	2	− 1.5	rb, m	200	..	yell., blsh.	c
				.76	83 .25	0 .95	4	6 .79	2	− 3.0	rg, rg	300	..	ornge., blsh.	R
	355	1	+ 7 55	80.81	146 .52	2 .72	4	2 .84	2	− 0.8	vb, m	200	8.5, 8.9	whs.	
	343	4	+ 83 34	79.06	324 .73	0 .22	4	26 .09	2	− 0.5	rg, vg	300	6.0, 7.5	yelsh. wh., greyish red.	
	C 11.5	about 114° and 50″		.78	324 .88	0 .28	4	25 .66	2	− 3.9	m, m	200	7.7, 8.3	whs.	c
	374	13	+ 67 1	79.04	293 .63	1 .02	4	10 .76	2	+ 3.1	g, g	200	(7, 8)	wh., blsh. wh.	H R
	408	25	− 4 40	77.91	156 .49	1 .90	4	..	..	− 1.2	vb, b	300	..	whs.	d c
				78.08	160 .50	0 .37	4	1 .57	2	+ 0.1	m, m	500	..	whs.	H
7 Tauri, . .	412AB Med. & C	27	+ 24 3	78.90	234 .87	1 .98	4	..	..	− 1.0	b, rb	400	(7, 7)	grnsh. yells.	H c
				78.90	60 .15	0 .30	4	22 .02	2	− 0.7	vg, rg	200	(10)	pur.	H
				.90	60 .55	0 .50	4	22 .21	2	− 3.1	rb, m	300	..	grnsh. yell., pur.	R
Cust. Mes. 70 B,	419	30	+ 69 26	79.04	74 .05	0 .77	4	3 .20	2	+ 1.8	rg, g	200	(7, 7)	whs.	H
P. III. 98, . .	422	31	+ 0 12	77.86	246 .31	1 .42	4	6 .71	2	− 3.2	vb, b	200	..	yell., red.	FHR c
				.87	242 .64	0 .95	4	6 .26	2	− 0.9	vb, b	500	..	yell., viol.	H R
				78.08	242 .98	0 .67	4	6 .74	2	+ 0.2	m, m	500	..	yell., viol.	H
				82.93	246 .93	0 .50	4	6 .12	2	− 0.8	m, rb	300	6.7, 8.2	pl. yell., pur.	H c
	421	33	+ 71 14	79.01	234 .63	1 .12	4	11 .74	2	+ 2.3	m rg	400	(7, 11)	yell., blsh.	F R
				.04	235 .10	1 .50	4	12 .84	2	+ 2.1	rg, g	200	..	yelsh. wh., pur.	F H R
	455	44	+ 69 9	79.01	165 .53	0 .48	4	12 .07	2	+ 2.5	rg, rg	400	(8, 9)	wh., blsh. wh.	R
Ceph. 49, Hev.	460	49	+ 80 21	76.04	30 .65	4 .25	12	..	..	− 2.3	b, rb	300	(5, 6)	whs.	b
				.10	25 .97	0 .70	10	..	..	+ 1.5	vg, rg	500	..	..	I
				.11	27 .99	1 .22	10	..	..	+ 2.6	rg, g	300	..	..	
				.22	25 .45	2 .08	10	..	..	+ 4.1	m, rb	600	..	..	I
	494	4 0	+ 22 45	83.01	187 .85	1 .20	4	4 .99	2	− 0.3	rg, g	200	7.2, 7.4	whs.	H b c
Tauri. 230 B,	535	16	+ 11 4	77.87	337 .29	0 .30	4	1 .42	2	− 0.8	b, m	400	(7, 8)	wh., viol.	H c
				.91	336 .27	0 .82	4	1 .74	2	− 1.6	b, rb	300	..	wh., blsh. wh.	c d
				78.08	336 .90	0 .57	4	1 .67	2	+ 0.1	m, rg	500	..	whs.	H
	546	20	+ 18 49	76.02	185 .12	0 .63	8	..	..	− 0.9	..	600	(8, 9)	..	
				.03	186 .02	0 .85	10	..	..	− 1.7	..	300	..	..	
				.03	185 .49	0 .88	10	..	..	− 2.4	..	300	..	ornge., viol.	
				.04	184 .74	0 .71	10	..	..	− 1.7	m, vb	300	..	grnsh. yell., blsh.	b
				.10	185 .76	0 .74	10	..	..	+ 0.5	m, g	300	..	..	
				.10	185 .02	0 .83	10	..	..	+ 0.5	m, g	300	..	..	
2 Camel., . .	566	30	+ 53 15	78.90	289 .33	0 .57	4	..	..	− 2.5	rb, rg	500	(5, 7)	..	F H f
				.90	294 .08	2 .38	4	1 .80	2	− 2.5	rb, m	400	..	grnsh. yell., pur.	H c

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
2 Camel., . .	566	4h 30m	+ 53° 15′	78.91	291°.37	2°.13	4	1″.83	2	h. − 2.7	rb, g	300	..	grnsh. yell., bl.	H
	577	34	+ 37 15	77.86	262 .34	1 .70	4	..	..	− 3.6	b, rg	200	(8, 8)	..	H R o
				.91	264 .01	1 .53	4	1 .44	2	− 3.4	rb, rg	300	..	whs.	c
				78.08	256 .55	1 .08	5	1 .67	2	+ 0.1	g, g	500	..	whs.	H
	584	38	+ 66 19	79.06	123 .43	0 .78	4	11 .46	2	− 1.1	rg, g	300	..	yelsh., pur.	F R
				.18	121 .30	0 .20	4	11 .86	2	+ 2.2	rg, rg	300	6.5, 10.0	ornge., blsh.	H R c
	589	38	+ 5 4	78.90	303 .65	0 .45	4	4 .50	2	− 1.2	g, g	200	..	whs.	H
				.91	302 .65	0 .85	4	4 .77	2	− 1.8	m, rg	300	..	whs.	H c
				82.93	302 .97	0 .98	4	4 .33	4	− 1.0	rb, rb	400	8.0, 8.0	..	
	604	46	+ 69 53	79.01	40 .50	0 .65	4	2 .30	2	+ 2.1	m, rg	400	(8, 9)	whs.	F R
	615	52	+ 73 26	79.18	354 .70	1 .40	4	..	..	+ 2.4	vb, m	300	(8, 10)	..	H R c
	[98]	5 1	+ 8 20	80.99	209 .13	1 .67	3	0 .98	2	+ 0.7	b, b	600	(6, 7)	..	
	638	1	+ 69 43	79.01	220 .97	0 .04	3	4 .96	2	+ 2.2	rg, g	300	(7, 8)	yelsh.wh., blsh.wh.	R
Camel., 19 Hev.	634	2	+ 79 4	78.90	2 .18	0 .37	4	19 .91	2	− 3.7	g, vg	200	(4, 8)	yell., bl.	H c
				.91	1 .88	0 .30	4	19 .94	2	− 2.7	g, vg	300	..	yell., pur.	H
	644	2	+ 37 9	77.89	221 .27	0 .87	4	1 .68	2	− 2.2	b, b	500	(7, 7)	ornge., yell.	H c
				.91	223 .01	1 .67	4	1 .72	2	− 3.6	rg, b	300	..	yells.	
				78.08	222 .08	1 .22	4	1 .73	2	+ 2.2	rg, rg	400	..	whs.	H
	646	2	+ 39 7	77.87	74 .47	0 .37	4	15 .81	2	− 2.0	rg, g	200	(8, 9)	yell., viol.	H R c
				.89	75 .22	0 .67	4	15 .43	2	− 1.9	b, rb	500	..	..	FHR c
				78.08	74 .53	1 .18	5	15 .85	2	+ 2.6	rg, rg	200	..	wh., viol.	H
β Orion., . .	668	9	− 8 21	77.17	200 .15	0 .23	4	9 .60	3	+ 1.5	vb, g	300	(1, 8)	..	o
				.91	199 .42	0 .77	4	9 .86	2	− 0.4	b, b	200	..	wh., bl.	d
				85.99	200 .40	0 .93	3	9 .29	4	− 0.4	rb, rb	228	..	..	
				86.00	204 .20	1 .45	4	..	..	+ 2.5	vb, m	340	..	yell., redsh.	H R
				.01	197 .81	1 .37	4	..	..	− 1.1	b, vb	110	..	..	
η Orion., . .	Da. 5	18	− 2 30	78.08	87 .30	1 .50	4	1 .13	2	+ 0.4	rb, rb	600	(4, 5)	wh., redsh. wh.	H
				85.99	82 .83	0 .37	3	..	..	− 1.6	b, rb	600	..	..	
	704	20	+ 69 33	79.21	12 .25	0 .40	4	27 .31	2	+ 2.4	vb, rg	200	6.7, 9.0	yell., redsh.	H R
	712	20	+ 2 49	77.91	54 .59	0 .67	4	3 .08	2	− 2.4	rb, m	300	(7, 9)	wh., viol.	c d
				78.04	54 .62	1 .55	6	..	..	+ 2.0	vb, vb	300	..	..	b o
				.08	55 .83	1 .38	5	2 .93	2	+ 1.0	vb, m	600	..	..	H
32 Orion., . .	728	24	+ 5 51	76.24	204 .17	0 .15	4	..	..	+ 2.9	b, b	400	(5, 7)	..	?
Tauri 380 B, .	742	29	+ 21 56	76.03	256 .85	0 .88	10	..	..	− 1.5	..	600	(7, 8)	..	
				.03	256 .05	0 .72	10	..	..	− 2.2	..	300	..	yelsh., blsh.	c
				.03	255 .60	0 .69	10	..	..	− 3.3	..	300	..	whs.	
				.04	256 .07	1 .08	10	..	..	− 2.6	m, m	300	..	yelsh., viol.	b
				.08	256 .74	0 .40	5	..	..	− 2.0	g, m	300	..	..	o
				.10	256 .31	0 .65	10	..	..	+ 0.1	rg, g	300	..	yelsh., wh.	
				.10	255 .13	1 .10	6	..	..	+ 0.8	rg, g	300	..	..	
	749	30	+ 26 53	80.99	177 .60	1 .17	3	0 .84	2	+ 0.7	b, rb	300	..	whs.	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
	739	5h 31m	+ 66° 29′	79.21	247°.50	1°.12	5	2″.08	2	h. + 2.7	rb, g	200	.	..	H R
ζ Orion., . .	774 AB	35	− 2 2	77.91	157 .17	0 .92	4	..	..	− 1.1	vb, rb	300	(2, 6)	..	d
				78.04	156 .83	0 .47	4	..	..	+ 0.9	vb, vb	400	..	yell., red.	b c
				.08	154 .33	0 .77	4	2 .36	2	+ 0.4	vb, rb	600	..	wh., redsh.	H
				.11	152 .03	0 .84	5	2 .45	2	− 1.6	rb, rg	300	..	yell., blsh.	
				85.98	152 .55	2 .20	4	..	..	− 2.5	rb, b	340	..	..	
				.99	153 .17	0 .30	3	..	..	− 1.6	g, rg	600	..	..	
	774 AC			78.04	8 .93	0 .37	4	..	..	+ 1.0	vb, vb	400	(10)	bl.	b c
				.11	9 .54	0 .37	3	..	..	− 1.4	rb, rg	300	..	viol.	
	780 AB	38	+ 65 43	79.01	102 .42	0 .42	4	3 .55	2	+ 2.0	rg, g	300	..	yell., blsh.	R
				.05	103 .60	0 .80	4	3 .77	2	− 4.0	b, rg	200	6.7, 8.0	yell., blsh.	o
				.06	107 .23	0 .78	4	3 .74	2	− 0.6	rg, rg	300	7.0, 8.0	yell., blsh.	
				.18	103 .43	0 .38	4	3 .71	2	+ 1.9	m, m	300	..	yell., bl.	H R c
	780 AC			79.01	153 .00	0 .45	4	10 .96	2	+ 2.2	rg, g	300	(10)	yell., pur.	
				.18	153 .30	0 .70	4	11 .21	2	+ 2.2	rb, rg	300	..	yell., viol.	H R c
	868	6 9	+ 73 58	79.18	42 .88	1 .22	4	3 .64	2	+ 2.7	b, m	300	..	whs.	H o
				.19	43 .38	0 .57	4	3 .49	2	+ 3.8	m, rg	300	7.8, 8.3	whs.	H R
	932	27	+ 14 51	77.08	331 .55	1 .60	4	2 .27	2	+ 0.1	vb, m	600	(8,8)	whs.	H
				78.11	331 .50	0 .67	4	2 .01	2	− 1.0	m, rg	300	..	..	c
	943	30	+ 23 17	80.22	146 .98	0 .27	4	19 .24	2	+ 1.1	rg, m	200	7.5, 9.0	yelsh. wh., wh.	H
15 Monoc., . .	950	34	+ 10 1	..	..	..	..	2 .32	..	..	..	A	(6, 10)	..	
12 Lyncis., .	948 AB	35	+ 59 35	76.03	131 .48	1 .49	10	..	..	− 1.7	b	400	(5, 6)	yells.	
				.03	126 .83	2 .12	10	..	..	− 2.6	m	400	..	yells.	
				.03	127 .48	0 .70	10	..	..	− 3.8	b	300	..	grnsh. yells.	
				.04	133 .82	1 .12	10	..	..	− 1.0	b, vb	300	..	yells.	b
				.10	130 .73	0 .65	10	..	..	+ 0.3	rg, rg	300	..	yells.	
				.24	130 .61	0 .64	8	..	..	+ 1.0	m, g	400	..	yells.	c
				.25	129 .68	0 .80	8	..	..	+ 2.7	rg, g	600	..	grnsh. yells.	
	Med. & C			76.03	307 .65	0 .83	4	..	..	− 1.7	b	300	(7)	viol.	
				.03	305 .18	0 .53	8	..	..	− 2.6	m	400	..	viol.	
				.03	304 .72	0 .81	10	..	..	− 3.8	b	300	..	viol.	
				.04	304 .57	0 .47	6	..	..	− 1.0	b	300	..	viol.	
				.10	305 .97	0 .83	10	..	..	+ 0.3	rg, rg	300	..	viol.	
				.24	305 .01	0 .22	6	..	..	+ 1.0	m, g	400	..	viol.	
				.25	304 .78	0 .94	10	..	..	+ 2.5	rg, g	600	..	viol.	
				78.13	..	..	..	8 .34	..	..	..	A	..	viol.	
	973	47	+ 75 24	79.05	27 .00	0 .25	3	11 .76	2	− 4.2	rg, g	300	6.5, 7.7	grnsh. yell., viol.	
38 Gemin., . .	982	48	+ 13 21	76.00	163 .21	0 .68	10	..	..	− 0.6	..	T	(5, 8)	..	
				.03	161 .06	0 .91	10	..	..	− 2.2	vb	300	..	yell., viol.	c
				.03	164 .00	1 .03	10	..	..	− 2.0	m	300	..	pl. yell., blsh.	
				.04	164 .75	0 .60	10	..	..	− 0.8	rb, b	300	..	wh., viol.	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
38 Gemin., . .	982	6h 48m	+ 13° 21′	76.10	165°.93	0°.86	10	..	..	+ 0.4	rb, g	300	..	grnsh. yell., viol.	c
				.10	166 .52	1 .88	10	..	..	+ 0.8	rg, g	500	..	yelsh., viol.	
				.22	163 .00	0 .52	10	..	..	+ 1.5	vb, g	400	..	..	
				.22	164 .49	0 .50	10	..	..	+ 1.4	m, g	600	..	yell., viol.	I
				78.16	..	..	..	6″.05	..	..	..	A	..	..	
				.20	..	..	..	5 .78	..	..	..	A	..	..	
μ Can. Maj., .	997	50	− 13 53	78.08	342 .23	0 .42	4	2 .55	2	+ 1.1	b, m	300	(5, 8)	ornge., redsh.	H
P. VI. 301, .	1009	56	+ 52 57	78.20	..	..	..	3 .39	..	..	..	A	(7, 7)	..	
	1037	7 5	+ 27 28	78.20	..	..	..	1 .35	..	..	..	A	..	..	
				80.22	312 .05	3 .30	4	1 .33	2	+ 0.9	m, rb	200	..	whs.	H
				.23	320 .93	2 .83	4	..	..	+ 1.8	b, m	300	..	..	H
	1038	7	+ 68 46	79.19	96 .59	0 .36	5	11 .08	2	+ 2.4	rb, rg	300	..	yell., viol.	H R
λ Gemin., . .	1061	11	+ 16 46	76.03	33 .67	0 .84	10	..	..	− 2.2	b	300	(3, 10)	..	
				.03	30 .66	0 .63	10	..	..	− 2.2	g	300	..	wh., blsh.	
				.10	30 .36	1 .46	10	..	..	+ 0.1	b, g	300	..	yelsh., blsh.	
				.10	31 .03	1 .15	10	..	..	+ 0.3	b, g	350	..	..	I
				.22	30 .85	0 .55	10	..	..	+ 2.3	m, g	400	..	..	F
	1051 AB	12	+ 73 20	79.15	275 .58	1 .82	4	1 .00	2	− 1.5	b, m	400	6.5, 7.5	whs.	H
	1051 AC			79.15	81 .63	0 .17	3	31 .41	2	− 1.2	g, rg	200	9.0	viol.	H
				.18	81 .60	0 .20	4	31 .45	2	+ 1.9	m, m	300	..	..	H
δ Gemin., .	1066	12	+ 22 12	75.99	205 .43	0 .90	10	..	..	− 1.4	..	T	(3, 8)	..	
				76.00	201 .12	1 .02	10	..	..	− 0.5	..	T	..	..	
				.03	200 .68	0 .71	10	..	..	− 0.7	vb, vb	300	..	yelsh., blsh.	c
				.03	202 .69	0 .79	10	..	..	− 1.9	rg	300	..	whs.	
				.10	202 .21	0 .79	10	..	..	+ 0.3	m, rg.	300	..	yelsh., viol.	
				.10	202 .37	1 .00	8	..	..	+ 0.7	g, g	300	..	..	I
				.22	203 .21	0 .29	10	..	..	+ 2.5	rg, g	400	..	..	
				.22	204 .30	0 .73	10	..	..	+ 1.4	b, m	600	..	..	F I
				77.91	204 .22	0 .40	4	6 .49	2	− 2.1	rg, g	200	..	yelsh., blsh.	c d
				78.08	204 .38	0 .23	4	7 .46	2	+ 0 8	g, g	200	..	yell., bl.	H f
				.11	204 .27	0 .55	4	6 .87	2	− 2.2	rb, rg	300	..	yell., pur.	c
				.13	..	..	..	5 .97	..	..	..	A	..	..	
				.20	..	..	..	6 .85	..	..	..	A	..	..	
				.21	..	..	..	6 .31	..	..	..	A	..	..	
α Gemin., . .	1110	27	+ 32 1	75.99	236 .44	0 .38	10	..	..	− 2.0	..	T	(3, 4)	..	
				76.00	235 .08	0 .66	10	..	..	− 1.8	..	T	..	..	R
				.03	235 .34	0 .43	10	..	..	− 1.5	b	300	..	wh., blsh., wh.	d
				.03	234 .30	1 .01	10	..	..	− 0.6	vb	300	..	..	c
				.03	235 .94	0 .61	10	..	..	− 1.9	g	300	..	whs.	
				.08	232 .94	0 .78	11	..	..	+ 0.6	b, vb	300	..	..	
				.10	234 .83	0 .83	10	..	..	+ 0.3	b, g	300	..	whs.	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
α Gemin., . .	1110	7h 27m	+ 32° 1′	76.18	235°.62	0°.18	5	5″.69	4	− 0.4	m, g	500	..	..	C
				.19	235 .78	1 .00	8	5 .87	4	− 1.0	rg, g	300	..	..	
				.22	233 .31	0 .89	10	5 .90	4	+ 1.2	rb, g	400	..	..	
				.24	234 .93	0 .54	8	6 .00	5	+ 0.9	g, g	500	..	..	
				.32	234 .18	0 .44	10	6 .11	5	+ 2.7	g, rg	300	..	..	
				77.30	234 .77	1 .40	8	5 .58	3	+ 1.9	rb, rg	200	..	whs.	
				.31	235 .10	0 .45	4	5 .74	3	+ 3.5	b, rb	100	..	whs.	H b o
				78.11	235 .10	0 .30	4	5 .62	2	− 2.8	m, g	300	..	whs.	
				.16	..	..	..	5 .50	..	..	..	A	..	..	
				.20	..	..	..	5 .26	..	..	..	A	..	..	
				.21	..	..	..	5 .43	..	..	..	A	..	..	
				79.06	235 .02	0 .37	3	5 .44	2	− 0.7	rb, g	200	..	whs.	
				80.21	235 .98	0 .58	4	..	..	0.0	b, rb,	200	..	whs.	b H
				.21	236 .95	1 .25	4	5 .94	2	− 0.1	rb, rb	200	..	..	H
				.22	235 .30	0 .65	4	5 .64	2	+ 0.7	m, m	200	..	..	H
				.23	233 .95	0 .65	4	5 .70	2	+ 3.0	b, m	200	..	..	H
				81.20	233 .27	0 .28	3	5 .61	2	0.0	b, m	300	..	..	H I
				.24	234 .07	0 .92	4	5 .70	2	+ 0.6	b, b	300	..	..	H c
				.25	235 .34	0 .25	4	5 .46	2	+ 0.6	m, rg	200	..	..	H
				.26	236 .07	1 .02	5	5 .86	2	+ 1.8	rb, rg	200	..	..	H
				82.82	234 .35	0 .80	4	5 .69	4	− 2.0	rb, g	200	..	whs.	H d
				83.03	232 .28	0 .83	4	5 .44	4	− 1.1	rb, m	200	..	..	H b
				85.99	231 .15	1 .27	4	6 .36	4	− 1.2	rb, rb	228	..	..	
				86.00	232 .93	1 .13	4	5 .83	4	− 2.5	rg, b	600	..	whs.	
P. VII. 170, .	1126	33	+ 5 32	78.20	..	..	..	1 .41	..	..	..	A	..	..	
				80·21	147 .28	4 .00	4	..	..	− 0.2	vb, vb	300	(7, 7)	..	C c
				·22	139 .68	3 .32	4	1 .59	2	+ 0.9	m, rb	200	..	yelsh., whs.	H
				81.23	141 .97	0 .53	3	1 .54	2	+ 0.4	vb, rb	300	..	whs.	H c
				.24	139 .77	0 .73	3	1 .29	2	+ 0.8	rb, m	300	..	yelsh., whs.	H
				.25	142 .85	0 .95	4	1 .10	2	+ 0.9	vb, m	400	..	..	H
P. VII. 159, .	1122	34	+ 65 28	79.05	5 .10	0 .35	4	15 .30	2	− 4.4	g, vg	300	6.5, 7.0	whs.	
				.17	5 .50	0 .30	4	15 .36	2	+ 0.8	rg, rb	300	..	whs.	H c
	1142	41	+ 13 44	80.22	254 .93	0 .32	4	22 .89	2	+ 1.6	m, vb	200	7.5, 9.0	yelsh.	H b
	[182]	46	+ 3 41	80.22	345 .98	9 .48	4	..	..	+ 1.6	vb, b	200	..	..	? H
				81.23	36 .89	3 .02	4	0. 99	2	+ 1.2	vb, rb	300	7.4, 7.6	whs.	H
				.26	14 .75	4 .25	4	..	..	+ 1.8	vb, vb	600	..	..	? H
17 Canc. B, .	1177	58	+ 27 55	..	..	..	..	3 .61	..	..	..	A	(6, 7)	..	
85 Lync. B. .	1187	8 1	+ 32 36	78.11	53 .09	1 .46	5	..	..	− 2.1	vb, g	400	(7, 8)	wh., viol.	F o
				.20	..	..	..	2 .35	..	..	..	A	..	..	
ζ Canc., . .	1196 AB	5	+ 18 2	76.03	128 .32	1 .37	10	..	..	− 2.2	m	600	(5, 6)	..	
				.10	124 .02	4 .70	10	..	..	+ 0.5	b, g	600	..	yelsh., yelsh.	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
ζ Canc., . .	1196 AB	8h 5m	+ 18° 2′	76.19	124°.86	2°.06	10	..	..	− 1.3	b, m	500	..	..	
				.24	118 .71	1 .59	10	..	..	+ 1.3	g, g	500	..	yells.	
				.24	120 .29	1 .21	10	..	..	− 0.1	vg, rg	600	..	..	
				.25	119 .53	1 .30	10	..	..	+ 0.4	rg, rg	600	..	ls.	
				.30	121 .80	0 .67	8	..	..	+ 2.0	g, g	600	..	..	
				.32	119 .18	2 .08	10	..	..	+ 2.4	g. vb	600	..	..	
				77.20	109 .26	1 .29	5	..	..	+ 0.1	m, g	500	..	yells.	o
				.21	111 .04	2 .48	7	1″.00	3	− 0.5	rg, g	600	..	yells.	
				.33	104 .96	0 .86	7	0 .74	2	+ 3.8	rg, rg	600	..	..	
				78.08	104 .15	1 .80	4	..	..	+ 0.7	vg, g	600	..	whs.	H
				.20	..	..	..	0 .88	..	..	..	A	..	..	
				.21	..	..	..	1 .14	..	..	..	A	..	..	
				80.22	94 .70	6 .54	4	..	..	+ 1.9	m, vb	200	..	..	H b
				.27	83 .24	3 .96	5	..	..	+ 1.9	m, rg	200	..	..	H
				81.20	83 .10	1 .00	4	0 .93	2	+ 1.1	rg, rg	300	..	..	H I
				.23	82 .45	1 .37	4	0 .87	2	+ 0.1	m, m	300	..	yells.	H
				.25	92 .28	2 .35	4	0 .76	2	+ 1.0	rb, m	300	..	..	H
				.26	84 .58	1 .03	4	0 .79	2	+ 1.5	rg, g	300	..	..	H
				.29	81 .94	2 .20	3	0 .85	2	+ 2.9	rb, rb	400	..	..	H
	Med. & C			75.99	131 .52	0 .56	8	..	..	− 1.5	..	T	..	..	
				76.00	130 .93	0 .93	10	..	..	− 1.0	..	T	..	..	
				.03	131 .93	0 .84	10	..	..	− 1.1	rg	300	..	..	c
				.03	131 .74	0 .77	10	..	..	− 2.2	g	300	..	blsh.	
				.18	129 .17	0 .85	10	..	..	− 0.4	b, g	300	..	viol.	c
				.24	129 .53	0 .64	10	..	..	+ 1.3	vg, vg	300	..	..	
				.28	132 .78	0 .92	10	..	..	+ 1.0	m, g	300	..	viol.	
				77.20	128 .10	0 .60	3	..	..	+ 0.1	m, g	200	..	viol.	o
				.21	128 .48	1 .07	4	5 .69	3	− 0.5	vg, g	200	..	viol.	
				.30	133 .00	0 .40	4	..	..	+ 1.5	m, g	200	..	..	
				.33	129 .43	0 .85	4	..	..	+ 3.8	vg, vg	200	..	..	
				78.08	132 .00	1 .10	4	5 .55	2	+ 0.8	vg, vg	200	..	viol.	H f
				.16	..	..	.	5 .64	..	..	..	A	..	..	
				.17	..	..	..	5 .31	..	..	..	A	..	..	
				.20	..	..	..	5 .41	..	..	..	A	..	..	
				.21	..	..	..	5 .51	..	..	..	A	..	..	
				81.20	132 .10	1 .05	4	5 .08	2	+ 1.3	vb, rb	130	..	..	H o I
				.23	133 .23	0 .77	4	5 .44	2	+ 0.5	b, rb	300	..	pur.	H
				.25	130 .72	0 .67	4	5 .11	2	+ 1.1	m, rg	200	..	..	H
				.26	130 .53	0 .78	4	5 .72	2	+ 1.7	rb, rb	200	..	..	H
				.29	132 .19	0 .35	4	5 .65	2	+ 3.1	b, rb	200	..	..	H
γ Argus., . .	AB	6	− 46 58	85.17	220 .33	0 .37	4	41 .42	4	− 1.1	g, b	142	..	..	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
γ Argus., . .	AB	8h 6m	− 46° 58′	85.18	220°.28	0°.42	4	40″.98	4	+ 0.1	b, b	142	..	..	
	AC			85.17	152 .95	1 .42	4	62 .27	4	− 0.9	, vb	142	..	..	
				.18	150 .78	0 .50	3	61 .86	4	+ 0.2	b, b	142	..	..	
	BC			85.17	112 .50	0 .53	3	60 .96	4	− 0.8	vb, g	142	..	..	
				.18	112 .60	0 .27	3	60 .63	4	+ 0.4	b, b	142	..	..	
	CD			85.17	124 .00	1 .40	3	22 .23	6	− 0.6	vb, b	142	..	..	
				.18	123 .67	0 .63	3	22 .24	4	+ 0.6	b, b	142	..	..	
176 Camel., B,	1193 AB	7	+ 72 49	79.06	85 .60	0.30	4	43 .77	2	− 2.2	rg, g	300	6.2, 8.5	ornge.. blsh.	
	AC			79.06	22	..	1	76 ±	1	− 2.2	rg, g	300	10.7	..	
υ1 Canc., . .	1224	19	+ 24 56	78.16	..	..	..	6 .30	..	..	..	A	(6, 7)	..	
				.17	..	..	..	6 .22	..	..	..	A	..	..	
				.20	..	..	..	6 .24	..	..	..	A	..	..	
				.21	..	..	..	5 .62	..	..	.	A	..	..	
	1232	24	+ 66 41	79.06	350 .95	0 .30	4	31 .27	2	− 2.2	rg, g	300	8.0, 8.0	wh., blsh., wh.	
	1263	37	+ 42 9	76.03	18 .55	0 .03	6	..	..	− 2.3	g, g	600	..	..	
				.24	18 .78	0 .17	6	..	..	0.0	g, g	400	..	..	
				80.21	19 .07	0 .23	4	40 .89	2	− 0.7	m, m	200	7.0, 7.6	yelsh. wh., blsh. wh.	H
				.22	18 .92	0 .35	4	40 .61	2	− 0.8	m, rg	200	..	..	C o
ε Hydræ., . .	1273	40	+ 6 54	75.99	219 .25	1 .37	10	..	..	0.0	..	T	(4, 8)	..	
				76.03	220 .23	1 .06	10	..	..	− 2.1	g, g	600	..	yell., wh.	
				.10	215 .90	1 .15	9	..	..	+ 0.5	b, g	400	..	..	
				.19	215 .13	2 .22	8	..	..	− 1.1	b, g	400	..	..	
				.22	221 .29	1 .09	10	..	..	+ 0.4	b, g	400	..	..	
				.22	218 .71	0 .66	10	..	..	+ 1.8	m, g	300	..	..	I
				.24	219 .94	1 .29	10	..	..	+ 1.1	g, g	500	..	yell., viol.	
				.24	219 .64	0 .87	10	..	..	+ 0.3	g, g	400	..	yell., viol.	
				.30	218 .17	0 .74	7	..	..	+ 1.8	g, g	300	..	..	
				.32	219 .39	0 .91	10	..	..	+ 2.2	g, b	400	..	yell., redsh.	
	1281	41	+ 0 30	80.21	321 .75	0 .12	4	31 .64	2	− 0.4	rb, rb	200	6.5, 7.5	yelsh. wh., blsh. wh.	H c
				.22	321 .63	0 .17	4	31 .43	2	− 0.4	rb, rg	200	..	..	C o
	1280	44	+ 71 17	79.06	39 .38	0 .32	4	5 .70	2	− 3.2	rg, rg	300	7.0, 7.0	whs.	
				.14	38 .93	0 .27	4	5 .82	2	− 2.0	m, vb	400	..	whs.	
				.18	39 .58	0 .37	4	..	..	+ 0.8	rg, rg	300	7.0, 7.0	yelsh., whs.	H o
σ4 Canc., . .	1298	54	+ 32 44	78.21	..	..	..	4 .49	..	..	..	A	..	..	
σ2 Urs. Maj., .	1306	9 0	+ 67 39	79.15	236 .50	1 .60	4	2 .85	2	− 2.3	rb, m	200	6.0, 8.5	yell., pur.	H
				.19	243 .05	1 .30	4	2 .50	2	+ 1.5	rb, rg	300	5.0, 8.3	yel., pur.	H
	1321	6	+ 53 14	76.03	58 .45	0 .56	10	..	..	− 2.3	rg, rg	600	(7, 7)	yelsh., redsh.	
	1326	11	+ 78 58	79.14	171 .58	0 .30	3	29 .29	2	− 1.6	rg, rb	400	(8, 8)	whs.	b
	1333	11	+ 35 53	82.27	44 .25	0 .90	4	1 .59	4	− 0.2	rg, m	500	(7, 7)	yelsh., whs.	H
				.27	45 .82	0 .37	4	1 .73	2	− 0.3	g, g	600	..	yelsh., whs.	H
38 Lync., . .	1334	11	+ 37 20	78.20	..	..	..	2 .75	..	..	..	A	..	..	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
38 Linc., . .	1334	9h 11m	+ 37° 20′	78.21	..	..	..	2″.30	..	..	..	A	..	..	
157 Lync., B, .	1338	13	+ 38 43	76.03	145°.06	0°.65	10	..	..	− 2.0	m, m	600	(7, 7)	..	f
				.22	152 .94	1 .74	11	..	..	+ 1.5	g, g	400	..	..	I
				.23	150 .88	0 .95	8	2.13	3	− 0.9	g, g	300	..	..	I
				.24	148 .40	0 .61	10	2 .02	4	+ 0.7	g, rg	500	..	..	
				.32	150 .50	0 .98	10	2 .32	4	+ 1.9	g, rb	400	..	..	
				78.16	..	..	..	1 .84	..	..	..	A	..	..	
				.20	..	..	..	2 .07	..	..	..	A	..	..	
				.21	..	..	..	1 .45	..	..	..	A	..	..	
116 Hydr., B, .	1348	18	+ 6 51	77.30	322 .45	2 .80	4	1 .16	2	+ 0.8	vb, m	400	(7, 8)	whs.	
				.33	328 .45	1 .90	5	1 .77	3	+ 2.0	rb, rg	600	..	straw.	
				78.20	..	..	..	1 .79	..	..	..	A	..	..	
	1349	21	+ 68 3	79.14	164 .68	0 .23	3	19 .23	2	− 1.4	m, m	400	(7, 8)	pl. yell., pur.	
	1350	22	+ 67 19	79.15	246 .27	0 .30	3	10 .57	2	− 1.7	m, rg	500	7.0, 7.5	whs.	H
ω Leo., . . .	1356	22	+ 9 38	76.22	50 .67	2 .84	10	..	..	+ 1.6	b, g	400	(6, 7)	..	I
				.24	50 .13	0 .22	5	..	..	+ 0.7	rb, m	500	..	..	?
				.25	57 .21	4 .46	10	..	..	+ 0.9	m, rg	600	..	..	
				77.21	68 .85	1 .05	4	..	..	− 1.4	g, g	500	..	..	c
				.21	77 .42	2 .62	6	..	..	− 1.3	m, rg	500	..	..	
				.22	72 .83	2 .17	6	0 .51	3	− 0.8	rg, g	500	..	..	o
				78.26	80 .30	2 .56	5	0 .50	4	+ 2.0	m, m	600	..	yelsh., yelsh.	
				81.20	80 .43	2 .17	3	..	..	+ 2.6	vb, m	300	..	..	H I
				.23	86 .63	0 .58	4	..	..	+ 1.2	m, rb	300	..	yelsh., whs.	H
				.24	79 .94	1 .10	3	..	..	− 0.6	vb, b	300	..	..	H c
				.25	94 .30	4 .25	4	0 .42	2	+ 2.6	b, m	400	..	..	H c
				.26	75 .43	1 .73	4	0 .58	2	+ 0.6	rb, rb	300	..	..	H
				82.27	89 .32	0 .95	4	0 .55	2	− 0.5	rb, m	500	..	..	H c
				.27	85 .32	2 .23	4	0 .57	2	− 0.3	rg, rg	600	..	..	
				.27	75 .33	7 .08	4	0 .85	2	− 0.3	vb, m	300	..	yelsh., whs.	H
				85.17	93 .30	13 .00	3	..	..	− 0.2	rb, m	600	..	..	
	1362	26	+ 73 38	79.06	135 .42	0 .34	5	..	..	− 1.6	rg, g	200	7.0, 7.0	whs.	
				.15	133 .18	0 .97	4	4 .73	2	− 2.1	m, rg	500	7.0, 7.0	whs.	H
				.19	132 .10	0 .48	4	5 .07	2	+ 1.5	rg, g	300	6.3, 6.3	whs.	H
				.21	133 .08	0 .22	4	4 .77	2	− 0.1	m, rg	200	7.0, 7.0	yelsh., whs.	H R
	1389	45	+ 27 31	82.27	317 .25	1 .82	4	2 .11	4	− 0.4	rg, m	300	(8, 9)	..	H
				.27	314 .60	1 .15	4	2 .20	4	− 0.4	m, rg	300	..	..	H c
	1408	10 1	+ 73 39	79.15	11 .28	0 .30	5	3 .42	2	− 2.0	m, rg	300	8.0, 10.0	yelsh., wh.,—	H R
	1415	8	+ 71 41	79.19	167 .03	0 .52	4	16 .78	2	+ 1.0	rb, vg	300	6.5, 7.0	yelsh. wh., wh.	H
	[215]	10	+ 18 21	80.22	228 .23	5 .57	4	..	..	0.0	vb, vb	200	..	..	H b
				81.20	231 .80	2 .50	4	..	..	0.0	vb, rb	300	..	..	H I
				.23	221 .67	1 .47	3	..	..	+ 0.7	rb, rb	300	6.7, 7.2	whs.	H

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
ω Leo., . . .	[215]	10h 10m	+ 18° 21′	81.26	244°.20	2s.25	4	..	..	+ 0.2	vb, rb	300	..	..	H
				.29	227 .81	6 .43	3	..	..	+ 1.6	vb, m	400	..	..	H
				82.27	221 .87	0 .88	4	0″.95	2	− 1.0	rb, m	300	..	..	H
				.27	221 .44	2 .47	4	0 .82	2	− 0.6	g, rg	400	..	..	H
				.28	218 .05	2 .25	4	0 .81	2	− 0.2	b, rb	400	..	whs.	H o
	1423	12	+ 21 11	82.27	63 .90	2 .08	4	2 .06	2	− 0.3	vb, m	300	(9, 9)	..	H
				.27	67 .03	2 .62	4	..	..	− 0.7	vb, m	300	..	..	H R
γ Leo., . . .	1424	13	+ 20 29	76.00	111 .75	1 .59	10	..	..	− 1.5	..	T	(2, 4)	..	
				.03	115 .36	1 .03	8	..	..	− 2.1	..	300	..	..	
				.10	112 .86	1 .53	9	..	..	− 0.8	b, g	400	..	..	
				.22	111 .17	0 .80	10	3 .73	4	+ 1.2	m, g	400	..	ornge., bl.	
				.23	114 .71	1 .02	10	4 .34	4	− 1.5	b, g	300	..	gold, bl.	
				.24	111 .10	0 .89	10	3 .96	4	+ 0.2	rb, rg	300	..	ornge., bl.	
				.24	112 .32	1 .07	10	3 .45	4	+ 0.2	m, rg	400	..	orng., grnsh. yell.	
				.28	..	..	..	3 .95	4	+ 1.9	b, m	400	..	..	
				77.20	111 .43	1 .00	10	4 .02	2	− 0.9	rb, rg	300	..	ornge., bl.	
				.21	109 .53	1 .37	7	4 .10	3	− 1.5	rb, m	500	..	..	
				.21	110 .40	0 .42	5	3 .37	3	− 1.1	m, m	500	..	..	
				.21	113 .10	0 .48	5	3 .60	3	− 1.8	rb, rg	300	..	..	
				.22	111 .05	0 .70	6	3 .48	2	− 0.6	m, m	500	..	..	o
				.24	109 .97	0 .63	3	3 .77	2	− 1.2	rg, rg	500	..	..	6
				.29	112 .20	0 .55	4	3 .67	3	− 0.9	g, g	300	..	..	c
				.31	111 .57	0 .70	3	3 .65	4	+ 1.1	rb, vb	200	..	yell., bl.	H b o
				78.16	..	..	..	4 .12	..	..	..	A	..	..	
				.17	..	..	..	3 .49	..	..	..	A	..	..	
				.20	..	..	..	3 .90	..	..	..	A	..	..	
				.20	..	..	..	3 .23	..	..	..	A	..	..	
				.21	..	..	..	3 .18	..	..	..	A	..	..	
				79.06	114 .48	1 .47	4	3 .64	2	− 2.8	rb, m	200	..	..	
				80.21	115 .25	1 .77	4	..	..	− 1.7	vb, vb	200	..	..	b
				.21	115 .95	1 .25	4	3 .53	2	− 1.1	rb, vb	200	..	..	H b o
				.22	115 .45	2 .47	4	3 .62	2	− 0.8	rb, m	200	..	..	C o
				.22	112 .85	0 .77	4	3 .56	2	+ 0.2	b, vb	200	..	..	H b
				.22	115 .07	0 .98	4	3 .56	2	− 0.6	m, m	200	..	..	H
				.27	112 .67	1 .12	4	3 .55	2	+ 0.8	b, rg	200	..	..	H
				81.20	113 .38	1 .23	4	3 .65	2	+ 0.7	b, rb	300	..	..	H o I
				.23	111 .94	1 .52	4	3 .19	2	+ 1.0	rb, rb	300	..	..	
				.25	114 .45	0 .53	3	3 .32	2	+ 2.9	rg, b	400	..	..	H
				.26	113 .00	0 .55	4	3 .14	2	0.0	rg, g	600	..	..	H
				82.20	113 .06	0 .67	3	3 .89	2	+ 0.3	b, rb	200	..	..	o
				.27	114 .58	1 .18	4	3 .39	4	− 0.7	rb, rg	300	..	..	H

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
γ Leo., . . .	1424	10h 13m	+ 20° 29′	82.27	112°.35	0°.12	4	3″.58	4	− 0.4	rg, rg	600	..	..	H c
				.37	113 .00	0 .30	4	3 .39	4	+ 1.5	rg, rg	400	..	..	H
				85.17	112 .37	0 .13	3	3 .49	6	− 1.7	m, rg	600	..	..	
				.18	111 .38	1 .37	4	..	..	− 1.1	rg, m	142	..	..	
				.99	113 .87	0 .23	3	..	..	− 3.5	b, b	228	..	..	
145 Leo., B, .	1426 AB	14	+ 7 4	76.24	274 .27	4 .76	10	..	..	+ 1.0	m, rg	600	(8, 8)	..	f
				.25	273 .36	3 .25	10	0 .56	4	+ 0.8	g, g	500	..	pl. yells.	
				.30	274 .40	3 .72	10	..	..	+ 0.4	g, rg	600	..	pl. yells.	
	Med. & C			76.10	8 .02	0 .55	6	..	..	− 0.5	m, g	400	(9)	blsh.	
				.23	7 .16	0 .87	10	9 .28	4	− 1.1	rg, g	300	..	viol.	I
				76.30	8 .02	0 .54	10	..	..	+ 0.4	g, g	300	..	..	
				.32	8 .12	0 .20	6	..	..	+ 1.2	g, g	200	..	viol.	
	1457	32	+ 6 21	.30	318 .09	1 .74	10	..	..	+ 0.6	g, rg	450	(7, 8)	..	
				.33	315 .28	2 .56	10	..	..	+ 0.6	vb, b	500	..	..	
				77.21	314 .40	0 .32	5	1 .40	3	− 1.5	g, g	500	..	..	
				.22	314 .73	0 .37	4	1 .40	3	− 0.3	m, rg	500	..	..	R c
	[224]	33	+ 9 28	81.24	303 .10	10 .90	3	..	..	− 0.1	vb, b	300	(7, 8)	..	?
				.26	330 .23	8 .62	6	..	..	+ 0.5	vb, vb	300	..	..	? H o
				82.27	309 .93	0 .32	3	..	..	− 0.6	vb, m	600	..	..	? H c
	1465	36	+ 45 15	82.27	11 .50	2 .30	4	..	..	− 0.1	rb, rb	300	(8, 9)	..	H
	[229]	41	+ 41 45	82.27	309 .88	0 .32	3	..	..	− 0.7	vb, m	600	(7, 7)	..	? H c
				.37	330 .30	1 .20	4	0 .81	4	+ 2.3	m, rg	600	..	whs.	H
	1479	48	+ 83 54	79.15	20 .75	0 .40	4	4 .20	2	− 2.5	rg, g	300	8.0, 9.0	wh., blsh.	H R
54 Leo., . . .	1487	49	+ 25 26	77.29	102 .76	0 .56	5	6 .57	3	− 0.8	rg, m	300	(5, 7)	..	o
				.30	104 .32	1 .28	5	6 .57	3	− 0.5	b, rg	300	..	yell., viol.	
				.33	106 .03	0 .20	4	6 .75	2	+ 0.3	rb, m	600	..	..	
				.38	104 .85	0 .60	4	6 .43	3	+ 3.9	b, b	500	..	yell., viol.	H
				78.20	..	..	..	5 .72	..	..	..	A	..	..	
				.21	..	..	..	5 .74	..	..	..	A	..	..	
	1500	53	− 2 46	76.30	325 .89	0 .39	8	..	..	+ 0.6	g, g	300	(8, 8)	..	
				.33	322 .41	2 .01	10	..	..	+ 0.6	b, b	500	..	..	
	H.I. 77	56	− 15 8	82.27	18 .53	1 .27	4	2 .67	4	− 0.2	m, m	200	(8, 8)	..	H
P. XI. 9, . .	1517	11 7	+ 20 50	76.30	284 .54	0 .18	8	..	..	+ 0.8	m, g	600	(7, 7)	..	
				77.21	279 .23	2 .03	6	..	..	− 2.5	rg, rg	500	..	..	
				.24	286 .12	1 .08	6	..	..	− 0.8	m, m	600	..	whs.	H
				.33	289 .03	1 .20	3	0 .62	2	+ 0.5	m, m	600	..	whs.	
ξ Urs., . . .	1523	11	+ 32 14	75.99	311 .74	1 .31	15	..	..	− 3.2	..	T	(4, 5)	..	
				76.10	308 .21	0 .69	10	..	..	− 1.1	m, vg	400	..	pl. yells.	
				.22	307 .62	1 .62	10	..	..	+ 0.6	g, g	400	..	..	I
				.23	306 .17	0 .15	3	..	..	− 1.9	rb, g	300	..	whs.	I
				.24	306 .57	0 .55	8	..	..	+ 0.3	rg, rg	600	..	..	d

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
ξ Urs., . . .	1523	11h 11m	+ 32° 14′	76.25	304°.34	1°.01	10	..	..	+ 0.3	g, g	400	..	..	f
				.28	304 .67	1 .66	10	..	..	+ 0.9	b, b	400	..	..	
				.30	304 .43	0 .65	8	..	..	+ 0.9	vg, g	600	..	..	
				.31	305 .84	1 .54	10	..	..	− 0.2	g, rg	400	..	..	
				.32	306 .81	1 .64	10	..	..	+ 0.6	rg, rg	300	..	..	
				.33	307 .07	1 .29	10	..	..	+ 0.7	rb, rb	500	..	..	
				.33	307 .90	1 .88	10	..	..	+ 0.3	b, rb	500	..	..	
				.33	306 .37	0 .48	9	1″.97	4	+ 0.4	rb, g	500	..	..	
				.34	305 .51	1 .60	8	1 .54	3	+ 1.1	m, rg	800	..	..	c
				77.20	293 .62	1 .93	6	..	..	− 1.5	b, rg	500	..	whs.	o
				.21	293 .90	1 .67	3	..	..	− 2.1	m, b	500	..	whs.	b o
				.21	290 .64	1 .36	5	2 .06	3	− 2.6	rg, rg	500	..	..	
				.21	293 .16	0 .84	5	1 .75	3	− 2.0	g, g	500	..	..	
				.22	293 .72	0 .46	5	1 .71	4	− 0.5	m, rg	500	..	..	
				.22	296 .22	0 .74	5	1 .67	3	− 1.8	m, rg	500	..	..	R
				.24	292 .95	0 .55	4	1 .61	3	− 1.5	rg, m	500	..	..	H
				.29	296 .95	1 .03	3	1 .88	3	− 0.5	b, rb	500	..	..	F o
				.38	293 .60	1 .77	6	1 .93	2	+ 3.1	rb, rb	500	..	whs.	H
				.45	297 .08	1 .26	5	1 .49	2	+ 4.5	b, b	300	..	yelsh., yelsh.	H
				78.17	..	..	..	2 .17	..	..	..	A	..	..	
				.20	..	..	..	2 .19	..	..	..	A	..	..	
				.20	..	..	..	2 .05	..	..	..	A	..	..	
				.21	..	..	..	1 .62	..	..	..	A	..	..	
				80.22	274 .17	0 .88	4	2 .08	2	− 1.0	rg, rg	200	..	yelsh. whs.	H
				.23	277 .63	1 .57	4	2 .06	2	− 2.9	rb, rb	200	..	..	H
				.26	274 .60	1 .75	4	2 .19	2	− 0.8	m, m	200	..	..	H o
				.32	274 .32	0 .82	4	2 .13	2	+ 2.3	rg, m	200	..	pl. yells.	H
				.36	273 .97	0 .30	3	1 .78	2	+ 1.8	rb, m	400	..	pl. yells.	o
				81.20	269 .85	0 .53	4	1 .81	2	+ 0.5	rg, m	300	..	..	I o
				.23	269 .50	0 .53	4	1 .85	2	+ 0.3	m, m	300	..	pl. yells.	H
				.24	272 .52	0 .77	3	1 .81	2	0.0	rg, rg	200	..	..	H
				.25	269 .55	0 .60	4	1 .88	2	+ 1.5	rg, rg	400	..	..	H
				82.20	258 .93	1 .83	3	2 .44	2	+ 0.3	b, rb	200	..	..	c
				.24	254 .80	..	1	..	..	..	b, rb	200	..	..	o
				.27	261 .50	1 .37	3	1 .67	..	− 1.5	rb, rg	300	..	yelsh. whs.	H
				.28	262 .48	1 .23	4	1 .88	4	− 1.0	m, g	400	..	pl. yells.	H o
ι Leo., . . .	1536	17	+ 11 13	75.99	69 .64	1 .36	12	..	..	− 1.6	..	T	(4, 7)	..	
				76.10	66 .67	1 .20	10	..	..	− 1.0	m, g	400	..	yell., viol.	
				.24	65 .61	1 .12	10	..	..	− 0.1	b, rg	500	..	..	c d
				.25	66 .13	1 .16	10	..	..	+ 0.5	rb, m	400	..	..	
				.30	64 .74	1 .08	10	..	..	+ 1.1	rb, g	400	..	..	f

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
ι Leo., . . .	1536	11h 17m	+ 11° 13′	76.32	69°.09	1°.19	8	..	..	+ 0.7	m, rb	300	..	..	
				.33	67 .04	1 .48	10	..	..	+ 0.5	rg, rb	300	..	..	
				.33	64 .02	0 .80	9	2″.88	4	+ 0.6	rg, g	600	..	pl. yell., bl.	
				.34	62 .36	1 .14	8	2 .97	4	+ 1.4	m, rg	800	..	pl. yell., viol.	
				77.20	66 .43	1 .22	5	2 .80	3	− 1.0	b, rg	500	..	..	o
				.21	62 .88	0 .82	5	2 .81	4	− 1.8	m, rg	500	..	..	
				.24	64 .46	0 .84	5	2 .76	4	− 2.0	rg, m	500	..	..	H
				.26	64 .27	1 .18	5	3 .04	4	− 1.6	b, m	200	..	..	H
				78.21	..	2 .03	..	..	..	..	A	..	..	..	
				82.37	66 .73	0 .83	4	2 .83	4	+ 0.8	rg, rg	400	..	..	H
				.37	63 .67	2 .75	4	2 .59	4	+ 2.3	vb, vb	200	..	..	H o
201 Camel B.	1539	21	+ 81 43	79.15	312 .47	0 .28	3	19 .21	2	− 2.7	rg, vg	300	(7.0, 8.5)	yelsh., pur.	H R
57 Urs. Maj. .	1543	22	+ 40 1	82.28	5 .60	1 .50	4	5 .50	4	− 0.5	rb, rg	400	(5, 8)	pl. yell., viol.	H o
				.37	5 .85	0 .60	4	5 .28	6	+ 2.6	rb, vb	200	..	..	H o
	[235]	26	+ 61 44	80.36	65 .57	1 .30	3	0 .97	2	− 2.0	b, rb	400	6.3, 9.0	..	o
				81.24	65 .39	1 .86	5	..	..	− 0.6	vb, rg	300	..	..	H
				82.27	69 .65	1 .00	4	..	..	− 1.3	vb, rb	300	..	..	H
				.28	65 .20	3 .15	4	0 .97	4	− 0.9	b, vg	400	..	..	H o
90 Leo., . .	1552	28	+ 17 30	78.21	..	..	..	2 .64	..	..	..	A	(6, 7)	..	
				82.27	208 .27	1 .23	3	..	..	− 0.4	vb, b	400	..	..	H o
				.27	211 .52	1 .26	5	2 .96	4	− 0.4	rg, rg	400	..	..	H
				.28	211 .52	0 .38	4	3 .14	4	− 0.3	m, rg	400	..	whs.	H o
P. XI., 111, .	1555	30	+ 28 28	77.33	342 .02	1 .12	6	0 .72	2	+ 0.7	m, rg	600	(6, 7)	pl. yels.	
284 Urs. Maj.,	1559	32	+ 65 1	79.22	323 .13	0 .90	3	1 .83	2	− 1.2	rg, rg	200	6.5, 8.0	wh., blsh. wh.	H b c
	1573	42	+ 68 0	79.22	177 .08	0 .37	4	11 .25	2	− 1.1	rg, rg	200	6.4, 7.3	wh., blsh.	H b c
	1583	51	+ 87 42	79.22	284 .55	0 .65	4	10 .93	2	− 0.6	rg, g	200	7.3, 9.0	yelsh., blsh.	H b c
				.33	283 .15	0 .30	4	10 .96	2	+ 0.2	m, rg	200	7.0, 9.0	yell., viol.	H R o
	1590	55	+ 71 32	79.15	235 .10	0 .35	4	4 .99	2	− 3.0	m, rg	300	6.2, 10.0	yelsh.	H R
2 Com. Ber., .	1596	58	+ 22 10	78.21	..	..	..	3 .39	..	..	..	A	..	..	
	1599	59	+ 69 28	79.15	167 .85	1 .05	4	10 .47	2	− 2.7	m, g	300	6.5, 10.5	whs.	H R
	1602	12 1	+ 69 48	79.22	179 .53	0 .42	4	..	..	− 0.6	rb, m	200	7.2, 10.0	yelsh. wh.	b c
				.25	178 .45	0 .25	4	15 .32	2	− 2.4	b, m	200	6.9, 8.5	yell., pur.	c
				.33	179 .28	0 .37	4	15 .16	2	+ 0.4	rg, rg	200	6,5, 9.0	yell., viol.	H R
	1606	4	+ 40 35	82.27	337 .67	1 .80	4	1 .15	4	− 0.2	rb, rb	600	(6, 7)	..	H o
				.36	338 .05	1 .35	4	1 .34	4	0.0	b, b	600	..	..	H
				.37	339 .18	0 .77	4	1 .11	4	+ 2.4	m, m	400	..	whs.	H
	1614	7	+ 67 45	79.28	191 .33	0 .87	4	18 .81	2	− 0.8	rb, g	200	7.5, 10.5	yelsh., viol.	H R
	1626	11	+ 70 51	79.15	6 .20	0 .55	4	2 .32	2	− 2.2	rg, g	300	8.3, 8.3	whs.	H R
	1643	21	+ 27 44	80.22	46 .25	4 .22	4	..	..	− 2.5	vb, rb	200	..	..	C b o
				.22	47 .03	0 .72	4	1 .79	2	− 2.4	rg, m	200	..	..	H
				.32	50 .13	4 .57	4	1 .36	2	+ 1.8	m, m	200	7.8, 8.2	yelsh., whs.	H o

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
2 Com. Ber., .	1643	12h 21m	+ 27° 44′	.33	51°.04	1°.08	5	2″.15	2	−0.8	b, m	200	..	..	H o
191 Virg. B.,	1647	24	+ 10 25	76.10	215 .27	0 .15	3	..	..	−1.8	vb, g	600	(7, 8)	..	
				.30	214 .94	1 .01	8	..	..	+0.3	g, g	400	..	..	f
				.33	218 .67	2 .29	10	..	..	−0.1	rb, m	450	..	..	
				77.21	215 .22	1 .87	7	1 .73	2	−1.7	m, rg	500	..	..	F
				.24	213 .55	1 .05	6	1 .40	2	−1.7	rb, rb	500	..	..	H
				82.27	220 .75	0 .80	4	1 .39	2	−0.4	b, rb	600	..	..	H o
				.34	222 .72	1 .78	4	..	..	−0.9	vb, b	300	..	whs.	H
				.36	218 .59	2 .32	4	1 .29	4	−0.3	b, b	600	..	whs.	H o
	1658	29	+ 8 7	77.26	349 .25	0 .33	3	..	..	−1.1	b, m	400	(8, 10)	..	F H R
	1663	31	+ 21 53	77.30	95 .20	7 .10	2	..	..	−1.7	vb, m	600	(8, 9)	..	
58 Canc. B., .	1669	35	− 12 17	80.32	304 .07	0 .22	2	5 .46	2	+0.6	m, rg	200	..	yelsh., whs.	H
				.37	303 .75	0 .98	2	5 .61	2	+0.8	vb, vb	200	6.1, 6.5	..	o
γ Virg., . .	1670	35	− 0 45	76.10	161 .15	1 .02	10	..	..	−0.3	m, g	200	(3, 3)	whs.	
				.23	158 .51	0 .98	10	5 .64	4	−2.6	b, g	200	..	whs.	I f
				.30	157 .90	0 .78	8	..	..	+1.1	m, g	400	..	..	
				.32	157 .22	0 .76	10	..	..	−0.2	b, m	200	..	..	
				.35	..	..	..	5 .17	4	−0.9	b, b	500	..	..	H
				77.21	154 .98	0 .27	4	4 .96	5	−0.9	rb, m	500	..	..	
				.24	155 .03	0 .62	4	5 .18	5	−0.9	m, g	200	..	..	H o
				.30	156 .24	0 .80	5	5 .00	4	−1.5	b, b	500	..	whs.	H
				.38	157 .05	0 .45	4	5 .28	3	+1,2	b, m	500	..	whs.	
				80.32	157 .87	0 .17	4	5 .04	2	+0.2	m, rg	200	..	whs.	H
				.33	159 .15	0 .47	4	4 .98	2	−0.2	rg, b	200	..	..	H o
				.45	157 .60	0 .45	4	4 .97	2	+1.8	rg, rg	200	..	..	
				81.20	158 .00	0 .58	4	5 .06	2	+0.1	b, m	300	..	..	H I o
				.23	156 .44	0 .77	3	4 .98	2	−0.3	m, vb	300	..	yelsh., whs.	H
				.24	157 .02	0 .80	4	5 .22	4	−0.7	m, rg	200	..	..	H
				.25	156 .60	0 .35	4	5 .06	2	+0.3	rg, rb	400	..	..	H
				82.20	158 .83	0 .44	3	5 .51	2	+0.3	rb, rb	200	..	..	c
				.27	158 .35	0 .50	4	5 .37	4	−0.1	m, m	200	..	yelsh., whs.	H o
				.27	156 .35	0 .60	4	5 .19	4	−0.2	m, m	600	..	..	H f
				.33	157 .43	0 .32	4	..	..	−0.4	m, rg	200	..	yelsh., whs.	H o
				.34	156 .20	0 .35	4	5 .38	4	−0.8	rb, rb	400	..	yelsh., whs.	H o
				86.00	157 .27	0 .23	3	5 .73	4	−4.0	rb, rb	340	..	..	
	1678	39	+ 15 3	77.25	200 .06	0 .01	3	32 .53	5	−1.1	rb, rg	200	(6, 7)	..	H c
				.30	199 .98	0 .50	5	32 .21	5	−1.3	m, rg	200	..	wh., viol.	H
				.30	200 .97	0 .30	3	32 .14	3	−1.1	m, m	300	..	..	H o
				.34	200 .50	0 .33	3	32 .42	2	−0.6	g, rg	600	..	wh., viol.	
35 Com. Ber., .	1687 AB	47	+ 21 55	76.30	56 .04	0 .14	7	..	..	+1.1	b, g	400	(5, 8)	..	f
				.34	75 .15	0 .43	8	..	..	+0.1	rg, g	600	..	..	c

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
35 Com. Ber.,	1687 AB	12h 47m	+ 21° 55′	76.38	66°.85	1°.88	6	..	..	h. +2.0	b, rg	500	..	..	?
				77.24	63 .00	1 .76	5	1″.53	2	−1.4	rb, rb	500	..	..	H o
				.34	59 .95	1 .82	4	1 .32	3	−1.3	g, g	600	..	..	
	AC			76.33	125 .43	0 .44	8	..	..	+0.7	b, m	400	(8)	..	
				.34	124 .45	0 .51	10	..	..	−1,1	g, g	300	..	..	
				77.21	125 .15	0 .85	6	..	..	−1.8	b, m	500	..	..	F
				.24	124 .13	0 .01	3	..	..	−1.5	rg, rg	300	..	..	H c
				.30	123 .93	0 .50	4	..	..	−1.5	b, b	500	..	..	H
				.34	123 .42	0 .58	5	29 .02	3	−1.3	g, g	200	..	..	
	[256]	50	− 0 19	81.23	248 .17	1 .80	3	0 .90	2	+0.1	vb, rb	300	(7, 8)	whs.	H
				.24	248 .65	1 .63	4	..	..	−0.5	b, rg	200	..	yelsh., whs.	H
				.25	263 .60	1 .97	4	..	..	−1.0	vb, m	400	..	..	H
				82.27	246 .68	1 .30	3	..	..	−0.2	vb, m	200	..	..	H o
				.27	253 .83	0 .45	3	0 .66	2	−0.4	rb, rb	600	..	..	H f
				.27	247 .47	1 .67	4	0 .63	2	−0.4	g, rg	400	..	..	H
				.32	259 .60	3 .30	2	..	..	−0.2	vb, vb	400	..	..	H c
				.36	247 .95	1 .25	4	0 .67	4	−0.4	b, m	600	..	..	H o
	1698	51	+ 75 20	79.25	109 .68	0 .52	4	9 .92	2	−2.9	rb, m	200	7.9, 8.4	whs.	c
				.33	109 .95	0 .45	4	9 .82	2	+0.2	rb, rg	300	8.0, 8.5	..	H R o
	1720	59	+ 83 34	79.28	336 .35	0 .78	4	1 .79	2	−1.3	vb, rb	400	7.9, 8.4	whs.	H
179 Com. Ber. B.	1722	13 2	+ 16 10	77.25	336 .88	0 .97	4	3 .06	2	−1.7	b, rg	200	(8, 9)	..	H c
				.30	336 .88	1 .26	5	..	..	−0.9	m, m	300	..	whs.	F H o
				.32	334 .79	0 .85	4	3 .64	4	−0.7	b, rg	300	..	..	H
				.33	334 .39	1 .24	5	3 .59	3	+0.6	b, rg	500	..	yelsh.	F
				.34	332 .77	1 .02	4	3 .25	2	−0.8	rg, rg	600	..	..	F
42 Com. Ber.	1728	4	+ 18 12	81.23	187 .59	3 .52	4	..	..	0.0	b, b	300	(6, 6)	yelsh., whs.	H
				.24	191 .55	1 .17	4	0 .59	4	−0.7	rg, rg	400	..	yelsh., whs.	H
				.25	191 .65	2 .90	4	0 .63	2	−0.3	m, m	400	..	..	H
				.29	192 .75	4 .40	4	0 .61	2	−0.1	rb, m	400	..	..	H
	[261]	6	+ 32 41	82.27	348 .48	0 .78	4	1 .30	4	−0.2	m, m	600	(6, 7)	..	H
				.28	350 .33	1 .37	4	1 .46	4	−0.3	rg, rg	400	..	whs.	H
				.34	350 .23	0 .45	4	1 .20	4	−0.9	m, m	400	..	whs.	H
				.36	350 .34	0 .70	4	1 .26	4	−0.3	m, rg	400	..	..	H
	1734	14	+ 3 35	82.35	190 .85	2 .90	4	1 .12	4	−0.5	rb, rg	200	(7, 8)	..	H o
				.36	190 .42	1 .87	4	0 .99	4	−0.1	rb, rb	400	..	whs.	H o
				.36	190 .23	0 .15	4	1 .21	4	−0.7	b, b	400	..	..	H
				.40	193 .65	1 .60	4	1 .07	4	+1.9	vb, rb	600	..	..	H
P. XIII., 127,	1757	28	+ 0 20	76.30	58 .02	0 .13	5	..	..	+0.7	b, g	400	(8, 9)	..	df
				.31	63 .30	0 .85	8	..	..	−0.5	b, m	300	..	..	
				.35	62 .01	1 .37	10	..	..	−1.4	b, g	500	..	..	F H
				77.21	64 .95	1 .05	4	2 .36	2	−1.5	m, rg	500	..	..	F

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
P. XIII., 127,	1757	13h 28m	+ 0° 20′	77.26	64°.49	1°.28	5	2″.35	3	−1.3	b, rb	400	..	..	H R
				82.27	69 .40	0 .60	4	2 .15	4	−0.4	vb, rb	200	..	..	H o
				.28	69 .13	0 .87	4	2 .67	4	−0.3	b, rb	300	..	..	H
				.32	68 .83	1 .42	4	..	..	−0.6	vb, vb	300	..	..	H o
				.34	69 .47	0 .86	4	2 .40	4	−0.5	b, rb	400	..	..	H o
	1767	30	+ 68 24	79.27	352 .58	0 .63	4	4 .38	2	−1.8	m, rg	200	8.2, 8.2	..	H R
181 Can. Ven. B.	1768	32	+ 36 56	81.24	27 .57	18 .30	2	..	..	−0.9	b, rg	400	(6, 8)	..	? H
				82.27	16 .00	8 .50	2	..	..	−0.9	vb, b	600	..	..	? H
84 Virg., . .	1777	37	+ 4 11	76.30	229 .98	2 .42	4	..	..	+1.0	vb, g	500	(6, 8)	..	f
				.34	233 .13	1 .17	6	..	..	−1.6	vb, m	600	..	..	
				.35	234 .96	1 .56	8	..	..	−0.9	m, g	500	..	..	H R
				.38	231 .04	0 .86	8	..	..	+1.5	rb, rg	500	..	..	? F o
				78.40	235 .02	0 .23	4	3 .11	4	+0.4	rb, m	400	..	yell., viol.	
				82.27	235 .65	0 .80	4	3 .10	4	−0.1	g, g	300	..	pl. yell., pur.	H
				.28	233 .38	0 .82	4	3 .24	4	−0.2	vb, rb	300	..	..	H
				.32	235 .05	0 .55	4	3 .35	4	−0.4	b, rb	200	..	..	H
				.34	236 .32	1 .33	4	3 .26	6	−0.3	vb, rb	300	..	yell., viol.	H
	1781	40	+ 5 44	77.30	250 .93	6 .20	7	..	..	−1.3	b, rb	300	(8, 8)	whs.	F H
				.34	257 .35	1 .80	4	1 .06	3	−1.2	rg, rg	600	..	yelsh., viol.	
				.46	260 .75	0 .50	4	1 .03	2	+2.0	b, rb	500	..	..	H
	1784	41	+ 69 50	79.15	205 .58	0 .62	4	8 .73	2	−1.0	g, g	300	7.7, 9.0	wh., pur.	H R
	1785	43	+ 27 34	77.25	210 .72	1 .46	5	2 .03	2	−2.5	b, m	200	(7, 8)	..	H
				.30	208 .26	0 .92	5	2 .28	3	−1.8	rg, m	300	..	whs.	H
				.32	207 .87	0 .85	4	2 .29	4	−0.9	m, rg	200	..	yell., straw.	H
				.33	209 .10	0 .42	4	2 .32	3	+0.3	b, g	500	..	pl. yells.	F
				.34	207 .50	1 .10	4	2 .35	2	−0.6	m, rg	600	..	yells.	
				.38	207 .27	0 .90	6	2 .15	2	+1.3	b, m	500	..	yell., viol.	H
P. XIII., 228,	1788	48	− 7 27	77.26	69 .55	0 .50	4	2 .76	2	−0.8	b, m	200	(7, 8)	..	H
				.30	63 .26	1 .64	5	..	..	−1.1	vb, rb	300	..	..	H
				.33	65 .73	0 .84	5	2 .64	2	+0.6	vb, rg	500	..	..	
				.34	71 .30	1 .00	4	2 .76	2	−0.4	rb, rb	600	..	..	F
	1798	55	+ 79 0	79.15	13 .25	0 .52	4	7 .37	2	−3.3	rg, g	300	6.8, 8.8	yellsh., viol.	H R
				.27	12 .78	0 .42	4	6 .80	2	−3.0	b, g	200	7.0, 9.0	yell., viol.	H R
				.33	13 .40	0 .50	4	7 .13	2	+0.1	rb, m	300	7.5, 9.0	yell., bl.	H R
76 Boot. B., .	1804	14 2	+ 21 47	80.32	18 .73	0 .73	4	4 .69	2	+0.5	m, rg	200	7.3, 8.0	pl. yell., viol.	H o
				.37	18 .30	1 .45	4	4 .30	2	−0.1	rg, m	200	7.8, 8.6	wh., viol.	o
				.38	18 .63	0 .98	4	4 .42	2	−0.7	m, b	300	7.6, 8.7	yelsh., wh., viol.	b
	[278]	8	+ 44 44	80.38	121 .90	1 .00	2	..	..	−0.3	vb, vb	400	(7, 8)	..	? b
				82.27	104 .98	0 .43	4	1 .44	2	0.0	rg, rg	600	..	..	H
				.35	114 .05	2 .20	4	1 .02	4	−1.0	vb, rg	200	..	..	H o
	1819	9	+ 3 43	77.21	17 .40	1 .05	4	..	..	−1.4	rb, m	500	(8, 8)	..	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
76 Boot. B., .	1819	14h 9m	+ 3° 43′	77.46	17°.00	1°.92	5	..	..	+1.8	b, rb	300	..	..	R
				78.40	18 .02	1 .33	4	1″.25	2	+0.5	b, rg	400	..	whs.	
				.40	17 .65	1 .32	4	1 .19	2	−0.1	rb, rb	600	..	whs.	
				82.27	16 .35	1 .35	4	1 .39	4	−0.3	rg, rg	600	..	..	H
				.28	13 .58	2 .52	4	1 .16	4	−0.1	vb, m	500	..	..	H
				.34	18 .80	3 .07	3	..	..	−0.5	vb, rb	200	..	..	H o
121 Boot. B., .	1825	11	+ 20 42	77.32	172 .87	1 .25	4	4 .11	4	−1.1	m, rg	200	(7, 9)	pl. yell., viol.	
				.33	173 .51	1 .26	5	..	..	+0.6	vb, g	300	..	yell., viol.	
				.45	175 .52	0 .87	4	3 .98	2	+2.1	m, m	300	..	pl. yell., red	H
				.46	177 .00	0 .68	5	4 .13	4	+2.3	m, rg	200	..	yell., red.	H
	1830	12	+ 57 15	80.37	285 .38	0 .37	4	..	..	+0.1	m, m	200	..	..	o
	1831	12	+ 57 17	80.67	142 .24	0 .63	3	6 .05	2	+4.8	m, rb	200	..	yelsh., wh., pur.	H R
				81.24	141 .30	0 .90	3	5 .98	6	−1.5	rb, rb	200	..	..	H
				.25	142 .10	0 .82	4	6 .02	2	−2.6	b, rb	400	7.7, 8.6	pl. yell., viol.	H
ι Boot, . . .	3124	12	+ 51 57	81.24	61 .97	11 .33	3	..	..	−1.1	m, rg	400	(5)	..	? H
				82.27	47 .95	5 .70	2	..	..	−1.2	vb, m	600	..	..	? H
	1840	18	+ 68 16	79.15	221 .53	0 .17	3	27 .28	2	−2.3	rg, g	300	6.7, 9.0	yelsh., wh., viol.	H R
				.27	222 .27	0 .22	4	27 .03	2	−2.2	rg, rg	200	7.0, 9.0	yelsh., blsh.	H R
	1842	21	+ 4 15	77.32	14 .17	0 .73	3	..	..	−1.0	b, rg	300	(9, 9)	wh., blsh. wh.	F H
				.45	11 .28	1 .37	4	3 .01	2	+2.3	b, rb	400	..	..	F H R
	1858	29	+ 36 6	77.25	34 .62	1 .72	6	2 .71	2	−2.0	rb, m	200	(7, 8)	..	H
				.32	33 .92	1 .42	4	2 .41	2	−0.9	b, rg	300	..	..	F H
				.33	34 .03	1 .76	5	..	..	+0.5	vb, rg	300	..	yell., —.	
				.39	34 .70	1 .35	4	2 .75	2	−0.3	rg, rg	400	..	yell., viol.	H c
	1863	34	+ 52 10	81.24	103 .37	1 .80	4	..	..	−1.1	vb, rg	400	(7, 7)	..	H
				.25	98 .68	2 .23	3	..	..	−1.4	rb, m	400	..	..	H
				82.27	97 .63	1 .72	4	0 .66	2	−1.0	m, m	600	..	whs.	H
				.37	96 .42	1 .23	4	0 .63	2	+0.2	rb, m	400	..	whs.	H
				.49	97 .27	2 .08	4	0 .67	4	+4.1	rb, rb	600	..	..	H
π Boot, . . .	1864	35	+ 16 58	77.25	99 .58	0 .72	6	6 .57	5	−1.8	b, m	200	(5, 6)	..	H c
				.30	100 .73	0 .68	4	6 .19	2	−2.1	b, rb	200	..	yell., viol.	H
				.30	100 .50	0 .68	5	6 .50	4	−1.4	b, b	300	..	..	H
				.32	101 .87	0 .60	4	6 .12	2	−0.8	rg, rg	300	..	pl. yell., viol.	H
				.33	102 .21	0 .27	4	6 .05	2	+0.7	b, rg,	200	..	yell., viol.	o
				.38	101 .30	0 .25	4	6 .02	3	+0.8	b, m	500	..	yell., viol.	
ζ Boot, . . .	1865	35	+ 14 16	76.30	302 .92	3 .58	10	..	..	+0.3	rg, rg	400	(3, 4)	..	f
				.33	303 .27	2 .01	10	..	..	−1.7	rg, vb	500	..	..	
				.33	299 .66	1 .59	8	0 .81	3	−1.9	rb, g	600	..	..	
				.34	302 .37	1 .30	8	..	..	−2.1	b, rg	400	..	..	
				77.21	298 .38	1 .74	5	..	..	−2.1	m, m	500	..	..	
				.26	301 .49	1 .16	5	1 .00	2	−1.2	rb, rb	400	..	..	H

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
ζ Boot, . . .	1865	14h 35m	+ 14° 16′	77.38	299°.63	1°.83	6	..	..	+ 1.0	rb, rb	500	..	yells.	H
				.39	302 .07	2 .07	6	09″.8	2	− 0.8	rg, vb	500	..	..	H c
				.41	301 .58	0 .07	4	0 .71	2	− 0.9	g, g	600	..	yells.	H
				78.40	298 .05	1 .40	4	1 .09	2	+ 0.7	b, rb	400	..	whs.	o
				.40	303 .35	1 .75	4	0 .81	2	− 0.3	rg, m	600	..	yelsh., whs.	
				.55	298 .81	1 .37	4	0 .74	2	+ 2.3	rb, m	500	..	pl. yells.	
				.58	300 .88	2 .72	4	0 .87	2	+ 3.7	b, rb	300	..	..	o
				82.27	297 .00	1 .05	4	..	..	− 0.4	rg, rg	600	..	..	H
				.35	297 .83	0 .83	4	0 .80	4	− 0.2	rg, rg	400	..	pl. yells.	H
				.36	297 .33	3 .42	5	0 .71	2	− 1.7	b, b	500	..	yelsh., whs.	H b
260 Boot. B., .	1867	35	+ 31 49	80.38	20 .48	1 .85	4	..	..	− 0.3	vb, b	200	..	..	b
				.68	18 .14	1 .08	4	1 .00	2	+ 3.9	m, rg	300	7.9, 8.6	yelsh.	H R
				81.24	23 .50	2 .35	4	..	..	− 1.6	vb, rb	300	..	..	H c
				82.27	19 .13	1 .33	4	1 .29	4	− 1.4	g, rg	300	..	whs.	H
				.41	15 .31	1 .45	4	..	..	+ 0.3	vb, m	300	..	..	H o
ε Boot., . .	1877	39	+ 27 36	76.30	324 .42	1 .37	10	..	..	+ 0.4	rg, rg	400	(3, 6)	gold., bl.	f
				.33	323 .43	0 .97	10	..	..	− 1.6	rb, b	500	..	yell., bl.	
				.33	323 .94	0 .86	8	..	..	− 1.6	rg, g	600	..	yelsh., bl.	
				.35	321 .18	2 .92	10	..	..	− 1.2	b, rb	800	..	..	H
				.35	322 .50	0 .88	10	..	..	− 1.4	vb, rg	400	..	..	H
				.35	322 .03	0 .69	10	..	..	− 1.6	rg, g	300	..	..	H
				.38	322 .02	1 .00	10	..	..	− 1.5	vb, g	300	..	..	f
				.41	327 .20	1 .07	6	..	..	+ 0.1	vb, vg	200	..	..	
				.61	327 .88	1 .11	8	2 .93	3	+ 2.8	b, rb	500	..	orng., viol.	
				.62	328 .89	0 .55	6	2 .63	3	+ 3.6	m, m	500	..	orng., bl.	
				.62	327 .47	1 .16	10	3 .22	3	+ 4.0	b, g	300	..	orng., bl.	
				77.21	323 .03	0 .97	4	2 .97	3	− 3.3	b, m	500	..	..	
				.26	326 .45	0 .44	5	3 .02	3	− 3.5	rb, m	400	..	..	H
				78.40	329 .00	0 .55	4	2 .90	2	+ 1.0	m, m	400	..	yell., bl.	
				.40	327 .08	0 .32	4	2 .79	2	0.0	rg, m	600	..	yell., bl.	
				.55	328 .04	0 .72	4	3 .14	2	+ 2.4	m, rg	500	..	yell., viol.	
				82.35	326 .40	0 .60	4	2 .76	4	− 0.1	m, rg	400	..	yell., viol.	H
				.36	329 .73	0 .83	4	..	..	− 0.9	rb, rb	200	..	..	H
				.36	326 .73	1 .23	4	2 .79	2	− 1.4	rb, m	500	..	yell., bl.	H
				.37	328 .20	2 .10	4	3 .03	4	+ 0.4	m, m	200	..	..	H o
				.40	330 .60	1. 20	4	2 .79	4	+ 0.4	m, m	400	..	..	H
	1876	40	− 6 51	80.32	75 .07	0. 97	4	..	..	+ 0.3	rb, rb	200	..	whs.	H o
				.37	72 .38	2 .10	4	1 .46	2	− 0.2	m, m	200	8.0, 8.0	whs.	o
	1883	43	+ 6 27	82.27	255 .15	1 .55	4	0 .69	2	− 0.1	g, rg	600	(7, 7)	whs.	H
ξ Boot., . .	1888	45	+ 19 37	76.33	285 .67	0 .97	10	..	..	− 1.5	m, b	500	..	..	
				.33	284 .26	0 .69	8	4 .71	4	− 1.5	g, g	600	..	pl. yell., viol.	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
ξ Boot., . .	1888	14h 45m	+ 19° 37′	76.35	284°.72	0°.60	8	3″.78	4	h. −0.9	rg, rg	500	..	grnsh. yell., viol.	
				.35	285 .50	0 .70	10	4 .26	4	−1.2	b, m	300	..	grnsh. yell., viol.	H
				.35	283 .89	1 .16	8	4 .69	4	−1.3	m, rg	400	..	..	H
				77.21	281 .50	0 .83	6	4 .80	3	−2.5	rb, m	500	..	..	
				.25	284 .18	0 .90	5	4 .66	4	−1.8	vb, rb	200	..	..	H c
				.26	283 .08	1 .07	4	4 .82	3	−1.1	b, rb	300	..	..	H f
				78.40	280 .40	1 .30	4	4 .34	2	+0.2	rb, m	400	..	yell., viol.	o
				.40	280 .72	0 .78	4	4 .31	2	+2.3	m, rg	600	..	yell., pur.	
				.55	282 .41	0 .37	4	3 .88	2	+2.5	m, m	500	..	yell., pur.	
				79.33	279 .50	0 .28	4	4 .27	2	+0.9	m, rb	400	4.5, 6.5	yell., pur.	H
				.72	279 .40	0 .97	4	..	..	+1.2	b, b	200	..	..	H c
				80.32	275 .75	0 .85	4	4. 14	2	−0.9	m, rg	200	..	pl. yell., pur.	H o
				.32	277 .87	0 .47	4	3 .74	2	+1.1	g, g	200	..	pl. yell., redsh.	H
				.33	277 .70	0 .30	4	4 .12	2	+0.6	rb, rg	200	..	..	H c
				.37	274 .98	0 .27	4	4 .13	2	−0.1	b, m	200	..	yell., pur.	o
				.37	275 .98	0 .17	4	3 .76	2	−2.8	m, rg	200	..	..	o
				.45	274 .65	0 .63	4	4 .04	2	+1.5	m, m	200	..	yell., pur.	
				.48	274 .22	0 .55	4	..	..	+1.7	g, g	400	..	..	H c
				81.24	274 .15	0 .43	4	4 .14	4	−0.1	rb, rb	200	..	..	H
				·25	275 .55	0 .43	4	3 .93	4	−0.7	b, b	200	..	..	H
				82.27	271 .55	0 .33	4	4 .06	4	−0.5	m, rg	200	..	..	H
				.28	272 .58	0 .63	4	3 .97	4	−0.4	rb, m	500	..	..	H
				.33	272 .52	0 .98	4	4 .18	4	−2.2	b, m	200	..	..	H o
				.36	272 .42	2 .08	4	4 .04	6	−1.2	m, g	200	..	pl. yell., pur.	H
				.40	271 .60	0 .60	4	3 .92	4	+1.0	rb, rb	400	..	..	H
	[288]	48	+ 16 12	82.27	194 .93	0 .43	4	1 .44	2	0.0	rg, rg	600	(6, 7)	..	H
	1905	56	+ 71 19	79.15	160 .77	0 .43	3	3 .64	2	−2.8	g, rg	300	8.0, 8.0	whs.	H R
44 Boot., . .	1909	15 0	+ 48 10	76.10	240 .73	0 .40	6	..	..	−1.2	rg, g	300	..	..	
				.30	240 .69	0 .96	10	..	..	+0.3	rg, g	400	..	..	
				.33	240 .09	0 .56	8	..	..	−1.6	rg, b	500	..	..	
				.33	240 .00	0 .47	8	4 .88	2	−1.4	g, g	600	..	..	c
				77.21	238 .57	0 .87	6	5 .06	4	−4.0	rb, m	500	..	..	
				.24	236 .50	0 .30	4	4 .82	2	−4.0	rb, m	500	..	..	H c
				.25	239 .63	0 .62	4	5 .41	2	−4.1	b, g	200	..	..	H c
				.30	239 .83	0 .67	4	5 .08	3	−2.9	m, rg	200	..	..	H
				.45	238 .02	0 .70	5	5 .14	2	+2.5	rb, m	400	..	..	H
				78.40	240 .60	0 .70	4	4 .91	2	+2.5	m, rg	600	..	yelsh. wh., blsh. wh.	
				.55	240 .02	0 .95	5	4 .96	2	+4.0	rg, rg	500	..	pl. yells.	
				.58	240 .04	0 .52	4	4 .77	2	+3.5	m, rb	300	..	whs.	o
				79.33	241 .43	0 .33	4	5 .00	2	−0.8	m, m	400	5.0, 5.0	pl. yells.	H o
				80.48	239 .35	0 .55	4	4 .79	2	−1.4	g, g	200	..	yells.	H

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
44 Boot., . .	1909	15h 0m	+ 48° 10′	80.65	239°.65	1°.32	4	4″.89	2	− 3.7	g, g	400	..	yelsh., whs.	
	1928	9	+ 72 55	79.15	275 .20	0 .33	3	6 .30	2	− 2.8	g, g	300	8.0, 8.7	whs.	H R
				.27	276 .78	1 .57	4	6 .41	2	− 3.8	b, m	200	8.3, 9.0	..	H R
1 Cor. B., . .	1932	13	+ 27 19	77.32	304 .71	1 .24	5	..	..	− 1.1	b, rg	500	(6, 6)	..	H
				.39	302 .10	0 .80	4	1 .33	2	− 0.2	rg, rg	600	..	whs.	H c
				.41	303 .68	1 .78	6	1 .23	2	− 0.7	rg, g	600	..	pl. yells.	H o
				82.35	307 .63	0 .77	3	0 .96	4	− 0.4	m, rg	400	..	whs.	H
				.36	309 .39	1 .70	4	0 .97	4	− 0.4	vb, b	400	..	yelsh. whs.	H
				.40	306 .05	0 .60	4	1 .02	4	− 0.4	m, b	600	..	whs.	H
η Cor., . . .	1937	18	+ 30 45	76.10	67 .18	1 .45	9	..	..	− 0.6	m, g	400	(5, 6)	..	
				.33	66 .19	3 .68	11	..	..	− 1.7	rg, rb	550	..	..	
				.33	69 .98	1 .72	8	0 .71	4	− 1.4	rg, g	600	..	..	
				.35	71 .32	1 .33	6	..	..	− 1.2	rb, b	800	..	..	
				.35	74 .70	1 .67	9	..	..	− 1.2	m, m	600	..	..	
				.38	71 .10	1 .00	6	..	..	− 1.1	rg, rg	500	..	..	f
				.61	67 .35	1 .15	8	0 .88	3	+ 2.8	m, rg	500	..	whs.	
				.61	74 .32	2 .43	8	..	..	+ 2.4	b, rb	500	..	..	
				77.21	79 .28	1 .02	4	..	..	− 2.3	rg, m	500	..	..	
				.26	81 .89	2 .04	5	0 .76	2	− 2.6	m, rg	500	..	..	H R
				.32	85 .59	4 .13	5	..	..	− 0.8	m, rg	500	..	..	H
				.41	81 .42	1 .42	5	0 .57	2	− 1.0	rg, g	600	..	pl. yells.	H o
				78.40	92 .18	2 .78	4	0 .70	2	+ 0.7	b, m	400	..	yelsh. whs.	
				.40	93 .02	1 .92	4	0 .55	2	− 0.1	rb, rb	600	..	yell., yelsh. wh.	
				.55	94 .66	2 .20	4	0 .62	2	+ 1.5	rg, rg	500	..	..	
				80.44	116 .68	1 .67	4	..	..	+ 0.1	vb, rg	400	..	..	c
				.45	114 .54	5 .80	5	0 ·52	2	+ 1.2	m, m	600	..	..	c
				.61	118 .90	4 .00	4	0 .51	2	+ 2.6	m, m	400	..	yelsh. whs.	H
				81.23	121 .32	2 .35	4	..	..	− 1.3	b, b	300	..	pl. yelsh. whs.	H
				.29	121 .22	3 .27	4	..	..	− 1.6	b, rg	300	..	..	H
				82.27	134 .07	0 .50	3	..	..	− 2.0	b, rg	300	..	..	H
				.27	137 .70	0 .65	4	0 .63	4	− 1.2	rb, m	600	..	..	H f
				.37	132 .67	0 .43	3	0 .48	4	− 0.2	b, rb	600	..	yelsh. whs.	H
μ^2 Boot., . .	1938	20	+ 37 45	76.33	141 .71	3 .15	10	..	..	− 1.5	rg, rb	600	..	..	
				.38	145 .62	0 .78	6	..	..	− 1.0	rg, g	500	..	..	f
				77.21	130 .93	2 .03	3	..	..	+ 0.6	b, rb	500	..	..	? H
				.39	125 .63	1 .90	4	0 .56	2	− 0.9	rg, rg	600	..	yell., wh.	o
				.41	132 .94	2 .36	7	0 .57	3	− 1.3	rg, g	600	..	whs.	H o
				.44	136 .74	1 .56	5	..	..	− 0.2	rg, m	600	..	yell., bl.	H
				78.40	139 .98	2 .58	4	0 .73	2	+ 1.3	m, rg	400	..	bls.	
				.40	138 .65	1 .75	4	0 .67	2	− 0.4	rg, rg	600	..	yelsh., bl.	
				.55	131 .94	0 .47	4	0 .57	2	+ 2.6	rg, g	500	..	..	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
μ^2 Boot., . .	1938	15^h 20^m	+ 37° 45′	78.61	140°.12	1°.68	5	0″.60	2	+ 4.2	rg, rg	400	..	bls.	
				80.45	129 .60	2 .15	4	0 .72	2	+ 0.7	m, m	600	7.8, 8.9	..	R c
				.45	131 .43	2 .25	4	0 .65	2	− 0.2	rg, rg	400	7.0, 8.0	..	
				.61	129 .32	1 .30	5	0 .75	2	+ 2.9	m, m	400	..	..	H
				81.23	121 .64	1 .83	3	..	..	− 0.9	b, rb	300	..	..	H
				.25	123 .43	4 .23	4	..	..	+ 1.6	b, b	200	..	..	
				.26	130 .50	3 .87	4	..	..	− 0.3	b, rg	300	..	..	H
				.29	132 .11	3 .42	4	..	..	+ 0.6	rb, m	300	..	..	H
				82.27	123 .77	0 .73	4	0 .75	2	− 0.3	m, m	600	..	..	H
				.37	126 .30	2 .35	4	..	..	+ 0.1	vb, vb	600	..	..	H
δ Serp., . .	1954	29	+ 10 57	76.10	187 .40	0 .53	6	..	..	− 0.2	m, g	400	(3, 4)	..	
				.33	187 .00	0 .57	7	..	..	− 1.4	rg, b	600	..	..	
				.33	188 .65	0 .67	8	3 .53	4	− 1.5	g, rg	600	..	..	
				.35	186 .10	1 .13	8	3 .50	4	− 1.0	vb, m	500	..	..	
				.35	184 .19	1 .30	8	3 .18	4	− 1.7	vb, m	400	..	..	H
				.35	188 .19	0 .96	8	3 .42	4	− 1.8	rb, m	400	..	..	H
				82.35	190 .23	0 .23	4	3 .30	4	− 0.3	m, rg	400	..	pl. yell., grays. yell.	H
				.36	189 .09	2 .25	4	3 .63	4	− 0.4	b, rb	400	..	..	H
				.40	189 .55	0 .60	4	3 .13	4	+ 0.5	rb, vb	400	..	..	H
	1961	30	+ 43 58	80.67	44 .45	0 .37	4	22 .64	2	+ 4.1	rb, g	200	8.5, 8.7	whs.	H R
				.68	43 .77	0 .13	3	22 .48	2	+ 3.5	rb, g	300	8.6, 8.8	yelsh. wh., wh.	H R
	[298] AB	32	+ 40 13	81.24	18 .57	7 .05	4	..	..	− 1.9	m, rg	600	(7, 7)	..	? H
				.25	16 .82	21 .17	3	..	..	− 2.1	vb, rb	400	..	..	? H
	Med. & C.			81.26	328 .52	7 .63	3	..	..	− 0.1	vb, rg	300	(7)	..	
ζ Cor., . . .	1965	35	+ 37 1	76.10	300 .39	0 .32	6	..	..	− 0.8	rg, g	400	(4, 5)	..	
				.33	300 .94	1 .01	8	..	..	− 1.6	m, rg	600	..	..	
				.33	301 .10	1 .08	8	6 .68	4	− 1.2	rg, m	600	..	..	
				82.35	303 .13	0 .52	4	6 .36	4	− 0.1	rg, rg	400	..	yelsh. wh., graysh. yell.	H
				.36	303 .64	1 .00	4	6 .33	4	− 0.2	b, b	400	..	..	H
				.40	302 .65	0 .45	4	5 .89	4	+ 0.7	m, vb	400	..	..	H
				.41	302 .43	0 .67	4	6 .07	4	+ 0.3	m, rg	300	..	..	H o
γ Cor., . . .	1967	37	+ 26 42	76.	77 .	single		..	..	..	..	..	(4, 7)	..	
	1985	50	− 1 47	80.32	332 .90	0 .55	4	5 .73	2	0.0	rg, rg	200	6.5, 7.5	pl. yell., viol.	H o
				.37	333 .85	0 .92	4	5 .96	2	− 0.3	vb, vb	200	..	..	o
				.38	332 .80	0 .13	3	5 .82	2	− 0.5	rg, vb	200	..	grnsh. yell., viol.	b
	[303]	55	+ 13 37	80.32	135 .15	1 .60	4	0 .59	2	− 0.4	m, m	600	7.6, 7.9	whs.	H c
				.37	133 .80	0 .33	4	..	..	− 1.1	m, rg	300	7.5, 7.7	whs.	o
				82.27	136 .50	0 .55	4	0 .73	2	− 0.7	m, rg	600	..	whs.	H
				.37	126 .70	..	1	..	..	− 0.3	vb, vb	400	(5, 5)	..	? H
ξ Scorp., . .	1998 AB	57	− 11 2	76.60	183 .89	1 .50	10	..	..	+ 2.1	vb, rg	500	..	pl. yells.	
				.62	185 .65	2 .18	10	..	..	+ 2.4	vb, b	500	..	whs.	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
ξ Scorp., . .	1998 AB	15h 57m	−11° 2′	76.62	189°.92	0°.89	8	..	..	h. +2.2	vb, g	500	..	..	
				77.41	180 .50	1 .44	5	0″.97	2	−1.1	m, b	600	..	pl. yells.	H
				.44	178 .43	1 .90	6	..	..	−0.5	b, b	400	..	..	
				80.32	191 .17	0 .53	3	1 .28	2	−0.1	rg, rb	400	..	yells.	H c
				.37	187 .73	1 .87	4	..	..	−0.3	vb, m	300	..	..	o
				.45	189 .73	0 .97	3	..	..	+0.9	b, b	200	..	..	c
				.48	190 .13	0 .72	4	1 .06	2	+1.0	rb, m	400	..	pl. yells.	
				81.24	191 .25	0 .75	4	1 .03	2	−0.6	rg, vb	600	..	..	H
				82.27	193 .65	0 .50	4	1 .19	2	−0.5	rg, rg	600	..	..	H
	Med & C.			76.33	66 .53	1 .03	10	..	..	−1.3	b, b	400	(7)	..	
				.60	64 .28	0 .51	8	..	..	+2.1	vb, g	300	..	viol.	
				77.61	66 .39	1 .30	4	7 .60	3	+2.3	vb, vb	300	..	..	H c
				81.24	69 .68	0 .17	3	7 .21	2	−0.3	rb, m	130	..	..	H
				.26	68 .00	0 .95	4	..	..	−0.3	vb, rb	200	..	..	H
				82.36	68 .52	0 .43	4	7 .63	4	−0.3	b, b	200	..	..	H
κ Herc., . .	2010	16 2	+17 23	77.26	10 .08	0 .01	3	29 .87	4	−1.5	m, rg	200	(5, 6)	..	H F
				.32	9 .77	0 .25	4	30 .28	3	−0.4	b, rg	200	..	..	H
				.39	9 .96	0 .48	5	30 .09	4	−1.4	m, rg	600	..	..	H
				.42	10 .13	0 .18	4	30 .56	2	−1.5	rg, g	500	..	..	H c
49 Serp., . .	2021	7	+13 51	76.10	328 .14	0 .90	10	..	..	−0.5	m, g	400	(7, 7)	blsh. wh., wh.	
				.33	328 .79	0 .39	8	..	..	−1.3	g, b	200	..	..	
				.33	325 .54	0 .76	8	3 .94	4	−1.3	rg, m	600	..	..	
σ Cor., . . .	2032	10	+34 12	76.10	200 .25	0 .83	8	..	..	−1.9	g, g	400	..	..	
				.33	198 .56	0 .44	7	..	..	−1.1	m, b	400	..	..	
				.33	198 .64	0 .86	8	3 .76	6	−1.5	g, m	600	..	..	f
				.38	200 .26	1 .02	10	4 .00	6	−2.6	m, g	300	..	..	
				77.21	198 .35	1 .13	6	3 .38	3	−2.2	b, m	500	..	..	H F
				.26	200 .19	0 .92	5	3 .86	2	−2.1	rb, m	300	..	..	H F
				.32	200 .75	0 .57	4	3 .50	3	−0.9	rb, rg	300	..	yell., viol.	H c
				.40	198 .24	0 .97	6	4 .06	3	−0.1	b, rg	400	..	yell., viol.	H c
				.44	199 .95	0 .55	4	3 .31	3	−0.5	g, g	500	..	..	
				78.40	200 .63	0 .50	3	..	..	−0.3	g, rg	600	..	..	
				.55	201 .36	0 .15	4	3 .16	2	+2.0	rg, rg	500	..	..	
				.58	201 .26	0 .30	4	3 .70	2	+2.7	m, rb	300	..	..	o
				.61	201 .99	0 .35	4	3 .68	2	+2.8	m, m	400	..	yell., bl.	c
				80.32	204 .20	0 .53	3	3 .46	2	−1.0	rg, rg	600	..	grnsh., yells.	H
				.38	204 .10	0 .40	4	3 .57	2	−1.4	m, m	200	..	pl. yell., yelsh. wh.	b
				.44	203 .76	0 .80	4	3 .63	4	+0.3	rg, g	200	..	..	R c
				.45	203 .43	0 .38	4	3 .52	2	−0.4	rg, rg	400	5.0, 6.5	orng., grnsh. yell.	
				.66	204 .27	0 .50	4	3 .55	2	+3.0	rg, g	200	..	..	H c
				81.23	203 .45	0 .62	4	3 .76	2	−1.3	m, m	300	..	..	H

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
σ Cor., . . .	2032	16h 10m	+ 34° 12′	81.25	204°.30	0°.58	4	3″.59	4	− 2.2	g, rg	400	..	..	H
				.29	204 .21	0 .37	4	3 .68	2	− 1.9	m, rg	300	..	..	H
	2049	23	+ 26 15	77.41	211 .53	0 .97	6	0 .96	2	− 1.1	rg, g	600	(7, 8)	..	H
				.44	206 .02	1 .47	6	..	..	− 0.1	m, m	400	..	whs.	H c
				.44	206 .78	2 .85	6	..	..	− 0.5	rb, m	400	..	whs.	H
				.61	209 .82	0 .32	4	..	..	+ 1.8	vb, vb	500	..	yell., viol.	H F
λ Oph., . .	2055	25	+ 2 15	76.33	29 .94	1 .09	8	..	..	− 1.2	rb, b	400	(4, 6)	..	
				.38	32 .68	2 .09	10	..	..	− 2.4	m, rg	400	..	..	f
				.60	23 .97	0 .83	8	1 .60	4	+ 2.4	m, rg	600	..	wh., blsh. wh.	
				.61	33 .40	2 .25	8	1 .50	3	+ 2.1	vb, rb	550	..	wh., blsh. wh.	
				.61	32 .68	0 .51	8	1 .30	3	+ 1.6	vb, b	500	..	pl. yells.	H
				77.41	32 .38	0 .87	4	1 .58	3	− 0.9	m, m	600	..	..	
				.44	32 .27	0 .57	4	..	..	− 0.4	m, g	500	..	yells.	H c
				78.40	33 .80	0 .35	4	1 .60	2	− 0.1	m, m	600	..	pl. yell., blsh. wh.	
				.55	33 .21	2 .25	4	..	..	+ 1.1	vb, b	500	..	..	
				80.37	36 .08	2 .08	4	..	..	− 0.5	rb, b	300	..	..	o
				.45	39 .10	2 .40	4	..	..	+ 0.9	vb, b	200	..	..	
				.68	38 .77	1 .10	4	1 .30	2	+ 1.5	rb, m	300	..	..	H
				81.23	35 .52	1 .00	4	..	..	− 0.1	vb, rb	300	..	..	H
				.24	36 .62	0 .83	3	1 .40	4	− 0.4	m, rb	400	..	..	H
				82.37	34 .55	1 .93	4	..	..	0.0	vb, vb	300	..	..	H
				.41	39 .33	1 .82	4	..	..	0.0	vb, rg	300	..	..	H o
				.45	41 .43	1 .72	4	1 .36	4	+ 1.1	m, m	400	..	..	H c
ζ Herc., . .	2084	37	+ 31 49	78.40	134 .10	0 .75	4	1 .45	2	+ 0.3	b, rb	400	(3, 7)	yell., viol.	
				.40	127 .73	1 .72	4	1 .39	2	− 1.1	m, m	600	..	yell., viol.	
				.55	125 .29	0 .97	4	..	..	+ 1.8	rb, rg	500	..	..	
				.57	125 .96	1 .95	4	1 .17	2	+ 2.2	rb, m	300	..	yell., blsh.	c
				.61	125 .84	1 .27	4	1 .42	2	+ 2.6	rb, m	400	..	yell., redsh.	
				.65	123 .03	0 .90	4	..	..	+ 2.6	rg, rg	300	..	..	H c
				80.37	118 .20	1 .15	4	..	..	− 1.3	b, m	300	..	..	o
				.45	118 .55	3 .30	4	1 .29	4	− 0.3	b, m	400	..	..	
				81.23	113 .89	1 .77	4	1 .47	2	− 1.2	b, rb,	300	..	yell., pur.	H
				.24	111 .91	2 .52	5	1 .39	2	− 2.3	b, g	300	..	..	H
				82.45	103 .65	1 .00	4	1 .67	4	+ 1.7	b, m	400	..	..	H c
				.49	104 .93	0 .47	4	..	..	+ 0.7	vb, m	500	..	..	H
	2094	39	+ 23 43	77.41	80 .48	1 .35	6	1 .48	2	− 0.7	rb, m	600	(7, 8)	whs.	H d
				.44	81 .30	0 .33	3	1 .33	2	− 0.6	g, rg	400	..	yell., pl. yell.	H
				.61	80 .07	1 .60	7	..	..	+ 1.8	m, vb	500	..	yell., viol.	bc
	2099	39	+ 70 23	79.28	218 .08	1 .02	4	..	..	− 4.2	rb, rg	200	7.5, 11.0	..	H c
				.33	217 .07	0 .97	4	..	..	− 4.4	vb, rb	300	8.5, 11.5	..	H Ro
P. XVI., 270, .	2114	56	+ 8 37	77.41	151 .45	1 .47	6	0 .87	2	− 0.5	b, m	600	(6, 7)	whs.	H fd

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
P. XVI., 270, .	2114	16h 56m	+ 8° 37′	37.44	154°.62	1°.30	5	0″.93	2	−0.4	rg, rg	500	..	yell., viol.	H
				.61	154 .10	1 .68	5	1 .55	2	+1.9	m, vb	500	..	yell. red.	H F c
	2124	59	+65 19	79.27	88 .65	0 .52	4	14 .65	2	−4.1	rg, rg	200	8.0, 8.8	wh., blsh.	H R
				.33	88 .43	0 .42	4	15 .03	2	−2.6	m, m	300	8.0, 8.7	..	H R
210 Herc. B.,	2120	17 0	+28 16	76.33	258 .89	1 .46	8	..	..	−1.3	rg, rb	400	(6, 9)	..	
				.60	257 .59	0 .58	6	4 .56	3	+2.2	rg, g	600	..	..	
				.61	255 .49	0 .75	6	3 .93	4	+1.5	m, m	400	..	..	F
μ Drac., . .	2130	3	+54 38	76.33	170 .84	0 .67	10	..	..	−1.2	m, m	400	..	..	
				.60	171 .57	1 .85	10	2 .66	5	+2.4	m, g	600	..	whs.	
				.61	170 .74	0 .87	6	2 .68	3	+4.6	rg, g	500	..	whs.	f
				.61	171 .04	1 .00	6	2 .79	3	+3.3	m, rg	600	..	whs.	
				77.61	170 .44	1 .28	5	2 .74	2	+2.4	rg, rg	300	..	yells.	H c
				.67	169 .62	0 .70	5	2 .30	3	+2.8	rg, b	600	..	whs.	C
				80.38	168 .37	1 .02	4	2 .73	4	−2.0	m, rg	200	..	whs.	b
				.60	166 .88	0 .97	4	2 .56	2	+3.0	rb, g	200	5.0, 5.0	yelsh., whs.	c
36 Oph., . .	H² 6946	8	−26 25	77.44	200 .10	0 .88	5	4 .03	2	−0.1	vb, vb	250	(4, 6)	whs.	H
α Herc., . .	2140	9	+14 32	76.33	115 .47	0 .91	10	..	..	−1.1	m, m	400	(3, 6)	orng., bl.	
				.60	114 .81	0 .60	10	4 .85	3	+2.5	m, g	600	..	orng., bl.	
				.61	115 .40	0 .67	8	4 .82	3	+2.7	g, g	500	..	orng., viol.	
				.61	114 .97	0 .47	6	4 .89	4	+2.4	vb, m	600	..	orng., blsh. viol.	
δ Herc., . .	3127	10	+24 59	76.61	182 .04	0 .39	10	..	..	+2.8	g, g	500	(3, 8)	yelsh., blsh.	
				.64	181 .38	0 .59	7	..	..	+1.5	rg, g	300	..	yelsh., blsh.	
	2151	12	+69 39	79.27	355 .65	1 .20	4	2 .58	2	−3.7	b, m	200	8.5, 9.5	yelsh. wh., blsh. wh.	H R
				.33	357 .18	0 .97	4	..	..	−4.2	vb, rg	700	8.2, 10.2	..	H R o
				.73	352 .90	1 .20	4	2 .91	2	+2.7	b, m	200	..	..	R o
ρ Herc., . .	2161	19	+37 18	76.33	310 .13	1 .89	10	..	..	−1.1	rb, rb	400	(4, 5)	..	
				.60	312 .22	0 .70	8	3 .93	4	+2.6	m, rg	600	..	blsh., whs.	
				.61	311 .18	0 .51	8	3 .64	3	+2.9	g, g	500	..	whs.	
				.61	310 .94	0 .97	6	4 .20	5	+2.5	m, m	600	..	whs.	
Herc., 281 B,	2165	21	+29 33	77.39	51 .43	1 .03	3	7 .94	2	−0.9	rb, rg	400	(7, 8)	..	H o
				.56	50 .82	0 .32	4	7 .59	3	+3.3	rg, b	300	..	pl. yell., viol.	H
				.61	49 .14	1 .13	6	7 .92	3	+2.6	rg, b	300	..	yell., viol.	H
				.61	51 .39	0 .42	4	7 .55	2	+1.6	g, rb	500	..	pl. yell., viol.	H c
	2179	22	+72 42	79.33	211 .75	0 .30	4	5 .34	2	−2.5	rg, rg	300	8.0, 8.7	whs.	H R
	2173	24	− 0 55	76.61	145 .35	2 .22	6	..	..	+1.5	m, m	500	(6, 6)	whs.	
				.62	156 .36	2 .86	7	..	..	+1.6	g, g	500	..	whs.	
				.70	150 .88	4 .20	9	..	..	+2.5	vb, g	500	..	..	
				.71	147 .21	1 .76	10	..	..	+2.2	rg, m	600	..	pl. yell., rose.	
				77.66	163 .09	1 .47	6	..	..	+1.1	vb, b	500	..	pl. yells.	? H c
				.68	147 .96	0 .37	4	0 .60	2	+1.7	b, rg	600	..	yells.	C
				.70	149 .44	2 .20	6	0 .75	2	+2.7	rg, b	600	..	pl. yells.	H

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
Herc., 281 B., .	2173	17h 24m	− 0° 55′	78.40	142°.50	1°.75	4	0″.52	2	+0.4	rb, m	600	..	..	
	2207	37	+ 67 6	79.37	133 .13	1 .57	4	0 .86	2	−2.9	b, rg	400	7.7, 8.7	whs.	H c
				.73	132 .25	1 .95	4	..	..	+3.1	rb, rg	200	..	..	R c
	2215	41	+ 17 46	77.41	296 .47	3 .47	4	..	..	−1.0	b, rb	500	(6, 8)	whs.	H f d
				.44	300 .40	5 .23	6	..	..	−0.3	rg, rg	500	..	pl. yell., wh.	H
				.66	312 .33	4 .79	8	..	..	+1.0	vb, b	400	..	whs.	H
				.68	317 .12	5 .47	4	..	..	+1.8	vb, rb	400	..	whs.	C c
	[338]	47	+ 15 22	80.32	27 .85	1 .80	4	0 .77	2	−1.5	rg, rg	400	7.2, 7.4	yelsh., wh. yell.	H c
				.61	22 .10	1 .75	4	..	..	+0.9	rb, m	400	..	whs.	H
				.67	25 .55	1 .32	4	0 .79	2	+1.8	rb, rb	400	..	yelsh., whs.	H c
τ Oph, . . .	2262	56	− 8 10	76.60	249 .90	1 .79	10	1 .74	3	+0.6	m, vg	500	(5, 6)	whs.	
				.61	249 .41	1 .81	10	1 .94	3	+1.2	g, g	500	..	..	
				.61	247 .04	1 .30	6	1 .61	3	+0.3	b, b	500	..	..	
				.62	249 .26	2 .34	9	1 .61	3	+0.7	rg, g	500	..	whs.	
				77.44	251 .80	1 .30	6	..	..	−0.9	rg, rg	300	..	yelshs.	H c
				.56	250 .51	1 .47	6	1 .52	3	+0.7	b, rb	600	..	pl. yells.	H c
				.60	251 .64	1 .35	4	1 .37	2	+1.1	b, rb	500	..	yell., orng.	H c
				78.40	254 .02	0 .32	4	1 .62	2	+0.2	rb, m	600	..	yelsh. wh., wh.	
				.65	254 .09	0 .72	4	1 .81	2	+0.6	rg, rg	400	..	yelsh., whs.	H c
				80.32	252 .00	1 .60	4	1 .71	2	−0.7	rg, rb	200	..	pl. yells.	H
				.65	253 .00	0 .53	3	1 .81	2	+1.1	m, m	200	..	whs.	H c
				.68	254 .04	0 .42	3	1 .98	2	+1.4	m, g	300	..	yells.	H R
				82.49	255 .00	1 .22	4	1 .58	4	+0.4	rb, m	600	..	..	H
	A.C. 9	50	+ 29 51	81.24	238 .65	4 .67	4	..	..	−2.9	vb, m	300	(8, 9)	..	H
70 p. Oph., .	2272	59	+ 2 33	76.33	79 .30	1 .05	8	..	..	−1.6	rb, b	400	(4, 6)	yelsh., pl. red.	
				.61	79 .58	0 .59	8	3 .29	4	+1.5	rg, g	500	..	yell., viol.	
				.61	77 .85	0 .65	6	3 .72	4	+1.1	rb, rb	500	..	yell., viol.	
				77.44	77 .64	0 .28	5	3 .46	2	−1.3	m, m	400	..	yell., red.	H c
				.56	77 .94	1 .64	5	3 .56	3	+2.3	b, b	300	..	..	H c
				.56	77 .14	0 .70	2	..	..	+1.7	b, b	600	..	..	H c
				78.40	77 .22	1 .52	4	2 .93	2	+0.5	rb, rb	600	..	yell., viol.	
				.55	73 .46	0 .75	4	3 .05	2	−0.1	rg, vg	400	..	yell., viol.	
				.57	76 .14	0 .87	4	3 .30	2	+0.3	m, m	300	..	yell., redsh.	c
				.65	75 .06	0 .35	4	2 .98	2	+1.0	rg, m	400	..	yell., viol.	H c
				80.32	65 .73	0 .27	4	2 .62	2	−1.1	m, m	400	..	pl. yell., redsh.	H
				.45	65 .55	0 .37	4	2 .48	2	−1.1	b, rb	400	..	..	
				.64	66 .10	0 .80	4	2 .21	2	+1.1	b, b	200	..	..	H o
				81.23	61 .67	0 .53	4	2 .69	2	−1.1	b, b	300	..	..	H
				.24	61 .83	1 .12	4	2 .91	4	−1.5	vb, rb	300	..	..	H
				82.49	56 .07	1 .08	4	2 .23	4	0.0	m, m	600	..	..	H
				.56	55 .40	0 .90	4	2 .35	4	+0.4	b, rb	400	..	..	H c

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
70 p. Oph., .	2278 AB	18h 1m	+ 56° 26′	76.61	23°.77	0°.07	3	..	..	+2.7	g, g	500	(7, 7)	yelsh., wh.	
				.61	23 .84	0 .57	6	..	..	+2.6	g, g	400	..	wh., blsh. wh.	c
	BC			76.61	146 .00	0 .17	6	..	..	+2.7	g, g	500	(8)	viol.	
				.61	145 .64	0 .90	6	..	..	+2.6	g, g	400	..	viol.	c
	2284	1	+ 65 57	79.37	193 .80	0 .65	4	3″.48	2	−2.7	m, rg	300	7.8, 9.2	yell., viol.	H c
73 Oph., . .	2281	3	+ 3 58	76.61	249 .29	1 .38	9	0 .99	3	+1.5	g, g	500	(6, 7)	wh., blsh. wh.	
				.61	245 .12	2 .35	10	..	..	+1.3	b, b	500	..	yelsh., viol.	
				.62	255 .70	1 .08	7	1 .12	3	+1.1	g, g	500	..	..	
417 Herc. B., .	2289	4	+ 16 27	77.41	237 .93	1 .34	7	..	..	−1.2	b, rb	500	(6, 7)	pl. yell., greysh.	H d f
				.44	235 .55	1 .77	4	0 .77	2	−0.4	rg, rg	500	..	pl. yell., pl. viol.	H
				.56	232 .44	0 .45	4	..	..	+1.3	b, rb	600	..	..	H c
				.61	237 .96	2 .48	6	1 .32	2	+1.2	m, vb	600	..	pl. yell., redsh.	H c
159 Drac. B., .	2302 AB	7	+ 75 48	79.38	246 .45	0 .77	4	5 .48	2	−4.3	m, rg	200	6.9, 9.5	yelsh. wh., pur.	H R c
				.73	246 .20	0 .33	3	6 .04	2	+2.2	rg, rg	200	..	yell., pur.	R c
	AC			79.38	280 .68	0 .42	4	22 .34	2	−4.0	m, rb	200	8.7	blsh. wh.	H c
				.73	279 .70	0 .40	3	22 .90	2	+2.3	rg, g	200	..	blsh. wh.	R F c
40 & 41 Drac.,	2308	9	+ 79 59	77.39	234 .53	0 .62	4	19 .66	2	−2.5	rg, rg	300	(5, 6)	yelsh. whs.	H o
				.67	234 .44	0 .27	6	19 .93	2	+2.2	g, g	200	..	yells.	c
	[358]	31	+ 16 54	79.72	19 .70	0 .75	4	1 .67	2	+1.6	rb, m	300	7.3, 7.5	yells.	c
				80.32	24 .65	1 .45	4	2 .10	2	−0.9	g, m	200	6.5, 6.8	wh., yell.	H
				.54	20 .92	1 .12	5	1 .66	2	−0.3	m, rg	300	6.8, 7.0	yelsh. whs.	
				.60	20 .43	1 .47	4	..	..	+2.0	vb, m	200	7.6, 7.8	whs.	c
				.61	21 .05	0 .83	4	1 .63	2	+0.4	rg, rg	400	7.3, 7.6	whs.	H
ε Lyræ., . .	2382	40	+ 39 33	75.92	18 .47	1 .33	12	..	..	+5.7	..	T	(5, 6)	..	
				.93	17 .63	0 .57	8	..	..	+1.5	..	T	..	..	
				.94	16 .06	0 .60	8	..	..	+3.5	..	T	..	..	
				77.32	15 .62	1 .25	4	3 .59	4	−2.7	b, m	300	..	..	H
				.38	15 .68	0 .82	4	3 .04	3	−1.8	m, m	500	..	..	H
				.61	14 .69	0 .35	4	3 .21	2	+1.7	m, rb	300	..	yells.	H c
				78.55	17 .01	0 .50	4	3 .09	2	−0.3	rg, vg	400	..	..	
				.57	15 .99	0 .57	4	3 .16	2	+1.5	m, rg	300	..	yelsh. whs.	
				.58	15 .94	0 .28	4	3 .09	2	+1.2	m, m	200	..	yelsh., yell.	o
5 Lyræ., . .	2383	40	+ 39 29	75.92	138 .76	0 .83	8	..	..	+5.7	..	T	(5, 5)	..	
				.93	139 .93	1 .20	9	..	..	+2.0	..	T	..	..	
				.94	139 .12	0 .56	8	..	..	+4.0	..	T	..	..	
				77.32	137 .64	0 .60	4	2 .40	4	−2.7	b, m	300	..	..	H
				.38	135 .95	0 .35	4	2 .33	4	−1.8	m, m	500	..	..	H
				.61	138 .30	0 .56	5	2 .42	2	+1.7	m, rb	300	..	pl. yells.	H c
				78.55	138 .86	0 .65	4	2 .33	2	−0.5	rg, vg	400	..	..	
				.57	139 .16	0 .30	4	2 .40	2	+1.7	rg, rg	300	..	yellshs.	
				.58	139 .26	1 .00	4	2 .07	2	+1.4	m, m	200	..	whs.	o

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
11 Aquil., . .	2424	18h 53m	+ 13° 29′	77.44	257°.10	0°.25	4	16″.75	1	− 0.9	rg, rg	500	(6, 9)	yell., viol.	H
				.61	256 .40	0 .28	5	17 .15	2	+ 0.8	rg, m	300	..	yell., viol.	H
	2437	56	+ 19 0	80.61	65 .60	2 .30	4	..	..	+ 0.6	m, m	400	8.2, 8.5	whs.	H
				.65	66 .50	0 .95	4	0 .92	2	+ 0.5	m, rg	300	..	whs.	H
	2441	58	+ 31 15	82.60	282 .73	0 .63	4	..	..	− 0.7	vb, rb	400	..	..	H R
				.62	283 .02	0 .82	4	6 .03	4	+ 0.9	m, rg	200	7.2, 8.6	pl. yell., pur.	H
	2456	19 1	+ 38 19	76.63	7 .12	0 .20	6	..	..	+ 0.7	g, g	400	(8, 8)	blsh. wh., viol.	
				78.55	7 .91	0 .22	4	25 .65	2	+ 0.5	m, rg	500	..	..	
				.58	7 .64	0 .13	4	25 .19	2	+ 0.5	rg, rg	300	..	whs.	o
	2455	2	+ 21 58	80.54	100 .28	0 .93	4	3 .32	2	− 0.6	m, rg	300	7.0, 8.5	pl. yell., viol.	c
				.60	101 .05	0 .85	4	3 .17	2	+ 2.0	b, m	200	7.6, 9.0	yell., pur.	
				.67	102 .44	0 .83	3	3 .53	2	+ 1.4	rb, m	200	7.0, 8.8	pl. yell., pur.	H R b
	2457	2	+ 22 24	80.67	201 .25	0 .22	4	10 .07	2	+ 1.1	m, rg	200	7.4, 8.8	pl. yell., pur.	H R
17 Lyræ, . .	2461	3	+ 32 19	78.55	317 .61	0 .70	4	3 .74	2	− 0.4	rg, g	400	(6, 10)	pl. yell., viol.	
				.57	320 .49	1 .32	4	3 .45	2	+ 0.3	m, m	300	..	yell., viol.	
				.68	322 .11	2 .77	4	3 .57	2	+ 0.5	rb, rg	200	..	yell., bl.	c
	2481	7	+ 38 34	80.61	45 .30	0 .28	4	3 .58	2	+ 0.8	rg, rg	400	7.9, 8.1	whs.	H
				.66	45 .97	1 .00	4	4 .00	2	+ 2.4	rg, g	200	8.2, 8.4	whs.	H
				.68	45 .40	0 .95	4	4 .07	2	+ 3.0	m, rb	300	..	..	H R c
	2484	9	+ 18 53	80.54	226 .20	0 .50	4	..	..	− 0.2	vb, m	300	7.2, 8.9	..	o
				.60	229 .05	0 .60	4	2 .25	2	− 0.3	rb, rg	200	7.3, 8.7	pl. yell., viol.	
				.67	226 .72	0 .40	4	2 .49	2	+ 1.9	rb, rb	300	7.5, 9.2	..	H R b
6 Cyg. B., . .	2486	9	+ 49 36	77.38	220 .65	0 .25	4	9 .92	4	− 2.7	b, m	500	(6, 7)	..	H
				.39	220 .85	0 .25	4	9 .87	4	− 3.1	m, m	400	..	whs.	H o
				.44	220 .57	0 .40	6	9 .87	4	− 1.8	m, m	300	..	..	c
				.61	219 .40	0 .28	5	10 .06	5	+ 1.9	m, m	400	..	yells.	H
71 Aquil. B., .	2489	11	+ 14 19	78.55	346 .06	0 .40	4	8 .18	2	− 0.2	rg, rg	400	(6, 10)	pl. yell., redsh.	
				.57	346 .11	0 .42	4	8 .32	2	+ 0.4	rg, rg	300	..	yell., blsh.	
				.61	347 .31	0 .90	2	..	..	+ 0.7	b, m	400	..	..	F o
	2491	11	+ 28 6	76.71	215 .86	0 .84	5	..	..	+ 0.9	m, m	600	(8, 9)	..	F R
P. XIX., 128.,	2521	21	+ 19 40	80.65	39 .60	0 .27	3	24 .68	2	+ 1.4	b, m	200	6.0, 10.0	orng., bl.	H R o
				.67	39 .22	0 .37	4	24 .02	2	+ 2.4	b, b	300	5.7, 10.0	orng., bl.	H R b
				.68	39 .05	0 .73	4	24 .26	2	+ 0.7	rg, rg	300	..	..	H R c
22 Cyg. B., .	2525	22	+ 27 7	80.61	218 .85	12 .72	4	..	..	+ 0.9	b, rg	400	7.0, 7.0	whs.	? H
				.81	201 .16	6 .83	3	..	..	+ 1.6	vb, b	300	..	..	?
	2545	32	− 10 26	76.60	319 .28	1 .44	8	3 .80	4	+ 1.0	rb, rg	400	(6, 8)	..	F
				.62	319 .46	1 .16	8	..	..	+ 1.0	m, rg	500	..	..	
	[377] AB	32	+ 35 24	80.61	42 .85	2 .20	4	..	..	+ 1.1	vb, m	400	8.6, 8.6	whs.	H
				.68	44 .97	1 .65	4	..	..	+ 0.7	vb, rg	200	C = 9.5	..	H R
	2576	41	+ 33 19	77.61	304 .14	0 .84	5	3 .58	2	+ 2.0	rb, m	400	..	whs.	H
				.67	303 .69	0 .18	4	2 .79	2	+ 1.3	rg, m	600	..	whs.	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
22 Cyg. B., .	2576	19h 41m	+ 33° 19′	77.68	304°.02	0°.28	6	2″.79	2	+ 0.4	rg, m	300	..	grnsh. yell., pl. red.	
				82.62	302 .20	0 .65	4	3 .03	2	+ 1.5	g, g	200	..	yelsh., whs.	H
				.68	300 .35	0 .65	4	3 .29	2	+ 1.0	rg, g	200	7.2, 7.4	pl. yells.	H
δ Cyg., . . .	2579	41	+ 44 50	75–77	comp.	invis.	..	..	..	..			..	..	
17 χ Cyg., . .	2580	42	+ 33 28	77.68	72 .26	0 .42	5	25 .16	2	+ 2.1	vb, m	600	(5, 8)	yelsh., redsh.	C c
				.70	72 .42	0 .03	4	25 .73	3	+ 1.2	m, rg	600	..	yell., red.	H f
π Aquil., . .	2583	43	+ 11 30	77.68	115 .69	0 .40	4	..	..	+ 2.2	vb, rg	600	(6, 7)	..	c
				.70	118 .67	0 .22	4	1 .29	2	+ 1.7	rg, rg	600	..	pl. yells.	H f
				.71	123 .34	1 .05	4	1 .28	2	− 0.2	rg. m	400	..	yell., viol.	H
				.71	121 .84	0 .80	5	1 .28	2	− 0.9	rg, rg	600	..	yell., pl. red.	H c
ζ Sagit., . .	2585	43	+ 18 50	75.94	310 .46	0 .95	10	..	..	+ 4.2	..	T	(6, 9)	..	
				76.60	310 .30	0 .52	8	8 .79	3	+ 1.4	m, rg	500	..	blsh. wh., viol.	
				.61	310 .79	0 .52	6	8 .52	4	+ 1.4	rg, rg	500	..	..	F
				77.68	312 .59	0 .70	4	8 .80	2	+ 0.8	rb, b	400	..	pl. yell., viol.	C
				.70	312 .24	1 .08	5	8 .69	2	+ 2.1	m, rb	600	..	yell., bl.	H f
				78.55	312 .19	0 .22	4	8 .87	2	− 0.4	g, g	400	..	pl. yell., viol.	
				.57	311 .79	0 .27	4	8 .74	2	+ 0.1	rg, rg	300	..	yell., viol.	
	2592	43	+ 76 15	79.38	306 .60	2 .10	4	..	..	− 4.6	m, m	200	7.5, 9.0	..	H R c
				.76	304 .80	2 .66	3	1 .12	2	+ 2.1	m, m	300	7.7, 9.6	yelsh. wh., blsh. wh.	
				.77	303 .40	2 .15	4	1 .23	2	+ 0.4	rb, m	300	7.7, 9.0	..	R f
192 Aq. B.. .	2596	48	+ 14 56	80.61	337 .95	1 .10	4	2 .04	2	+ 0.8	b, rb	600	..	..	o
				.66	339 .20	0 .43	3	2 .12	2	+ 0.2	b, rg	400	7.7, 8.5	pl. yell., pur.	H
				.67	339 .71	1 .28	5	2 .01	2	+ 2.4	b, b	300	..	..	H R b
ε Drac., . .	2603	49	+ 69 56	76.60	359 .11	1 .39	8	2 .96	4	+ 1.5	b, rg	500	(4, 8)	yell., bl.	
				.61	360 .52	0 .70	8	2 .83	3	+ 1.3	g, g	500	..	yell., bl.	
				.61	359 .86	0 .85	6	2 .98	4	+ 1.1	rg, rg	450	..	yell., bl.	
ψ Cyg., . . .	2605	52	+ 52 6	77.70	183 .39	0 .57	4	3 .57	2	+ 3.0	m, rg	600	(5, 8)	yelsh. wh., viol.	H f
				.71	181 .37	0 .50	4	3 .52	2	− 0.7	g, rg	400	..	yell., viol.	H
				.72	182 .91	0 .42	4	3 .33	2	− 1.2	g, rg	400	..	yell., blsh.	H
				.81	184 .24	0 .44	5	3 .50	2	+ 4.1	b, vb	300	..	yell., viol.	H c
	2617	54	+ 75 5	79.38	41 .03	0 .67	4	27 .94	2	− 4.5	rg, m	200	7.5, 8.5	yelsh. wh., blsh. wh.	H R c
				.66	41 .50	0 .13	3	27 .53	2	− 0.7	g, rg	200	..	yell., blsh.	c
	2626	59	+ 30 11	80.61	126 .95	2 .72	4	1 .05	4	+ 1.1	m, rg	300	8.3, 8.5	whs.	
				.66	123 .69	2 .17	4	1 .38	2	+ 0.6	rg, g	200	8.3, 8.3	whs.	H
				.68	127 .27	0 .75	4	1 .26	2	+ 0.5	rb, g	300	..	..	H R c
				.74	124 .62	2 .50	4	..	..	− 0.7	vb, m	200	..	..	c
				.81	128 .39	2 .15	4	..	..	+ 1.4	vb, rb	200	7.5, 7.5	whs.	
	2640	20 3	+ 63 30	77.71	21 .77	0 .85	4	5 .21	2	− 0.7	g, g	600	(6, 10)	yell., viol.	H c
				.72	22 .99	0 .45	4	5 .31	2	− 0.9	rg, m	400	..	whs.	H c
				.81	23 .48	0 .70	5	5 ,35	2	+ 4.4	rb, rb	300	..	yelsh., pur.	H o
	2694	21	+ 80 9	79.73	343 .95	0 .70	4	3 .54	2	+ 1.2	m, rg	200	7.0, 9.5	yell., pur.	R c

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
ψ Cyg., . . .	2708	20h 34m	+ 38° 11′	76.61	334°.00	0°.40	6	..	..	+ 0.8	vg, vg	500	(7, 9)	yelsh., blsh.	
				.64	333 .34	0 .27	6	..	..	− 0.6	m, rg	500	..	wh., blsh.	
				77.68	333 .57	0 .20	4	22″.07	3	+ 0.3	m, rg	400	..	yelsh., bl.	C
				.71	333 .61	0 .20	3	..	..	− 0.9	g, g	600	..	..	H o
				78.54	332 .99	0 .32	4	22 .40	2	− 0.9	rg, vg	100	..	orng., bl.	c
				.55	333 .19	0 .37	4	21 .99	2	− 1.1	g, g	400	..	yell., bl.	
				.58	333 .18	0 .37	4	22 .22	2	+ 0.1	m, m	200	..	yell., blsh.	o
				.64	333 .61	0 .34	4	22 .00	2	+ 0.4	rg, g	400	..	yelsh., bl.	H
	2725	40	+ 15 26	76.64	355 .15	0 .13	4	6 .32	3	− 0.4	m, m	500	..	grnsh., bl.	
				.78	359 .74	0 .86	8	4 .79	5	− 0.1	g, vb	200	..	grnsh., viol.	
				.93	361 .04	0 .24	5	5 .93	5	+ 2.7	b, m	500	..	yell., bl.	
				77.68	358 .11	0 .23	3	5 .25	3	+ 1.1	m, rg	300	..	whs.	C
				.71	359 .12	0 .23	4	5 .00	2	− 0.7	g, g	600	..	pl. redsh, bl.	H
				78.55	359 .81	0 .17	4	4 .90	2	− 0.6	g, g	400	..	whs.	
				.57	359 .51	0 .17	4	4 .69	2	0.0	rg, rg	300	..	wh., redsh. wh.	
				.64	359 .76	0 .15	4	4 .95	2	+ 0.7	rg, g	400	..	wh., blsh., wh.	H
				82.62	1 .88	0 .43	4	4 .85	4	+ 1.1	b, m	400	6.6, 7.0	..	H
				.68	1 .23	0 .77	4	6 .00	4	0.0	rg, g	200	..	..	H
				.78	0 .88	0 .43	4	4 .89	4	− 0.1	rg, g	200	..	..	
				.86	1 .90	0 .72	4	4 .84	4	+ 1.1	rb, m	200	..	yeslhs.	H c
52 Cyg., . .	2726	41	+ 30 14	77.70	60 .62	0 .28	4	6 .31	3	+ 1.9	g, rg	600	(4, 9)	..	H f
				.71	60 .49	0 .35	4	6 .42	2	− 0.4	g, rg	600	..	yell., viol.	H
γ Delph., . .	2727	41	+ 15 39	78.68	271 .86	0 .45	4	11 .20	2	+ 0.1	m, rg	200	(4, 5)	orng., blsh.	c
				.76	271 .59	0 .52	4	11 .32	4	+ 0.4	g, b	200	..	yell., bl.	H b
				.80	272 .74	0 .83	4	11 .38	2	+ 0.8	m, rg	100	..	yell., wh.	c
				82.62	272 .63	0 .23	4	11 .25	4	+ 2.1	rb, m	400	..	..	H c
				.68	272 .85	0 .15	4	11 .18	4	+ 0.5	m, g	300	..	..	H
				.86	272 .60	0 .20	4	11 .18	4	+ 1.4	rb, g	200	..	yell., blsh.	H c
	[413]	43	+ 36 5	78.76	86 .74	1 .07	4	0 .58	2	+ 0.9	vb, vb	500	..	..	H b
				79.76	81 .35	2 .76	5	..	..	− 0.8	vb, rb	300	..	..	R
				.76	81 .90	0 .90	4	..	..	− 0.5	b, rg	300	5.5, 6.7	..	f
	[416]	48	+ 43 20	79.70	137 .83	0 .10	3	6 .93	2	− 0.8	rg, g	300	6.8, 7.8	yell., blsh.	
				.76	138 .68	0 .25	4	7. 24	2	− 1.0	g, g	300	7.6, 8.2	yelsh. wh., blsh. wh.	f
				.77	138 .46	0 .17	4	7 .06	2	+ 2.4	g, m	300	7.2, 7.7	yelsh. wh., blsh. wh.	
				.77	138 .31	0 .32	4	7 .13	2	+ 0.2	g, g	300	7.5, 8.0	yelsh. wh., blsh. wh.	f
	[418]	50	+ 32 17	79.76	110 .00	1 .40	4	0 .96	2	− 0.3	g, g	300	7.4, 7.6	pl. yells.	f
				80.65	112 .90	0 .07	3	1 .10	2	+ 0.3	rg, rg	300	..	whs.	H R
				.66	112 .10	0. 30	3	1 .09	2	+ 0.1	rg, g	200	7.4, 7.7	whs.	H
				.73	112 .75	2 .72	4	1 .12	2	+ 0.7	rg, g	200	..	..	H c
				.81	111 .64	1 .30	4	1 .01	2	− 0.1	m, rg	200	7.3, 7.5	yelsh., whs.	
				.81	111 .82	3 .88	4	..	..	+ 0.8	vb, rb	200	7.5, 7.7	yelsh., whs.	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
ε Equl., . .	2737 AB	20 53m	+ 3° 48′	77.70	289°.44	1°.00	4	0″.84	2	+2.4	g, g	500	(6, 7)	pl. yells.	H f
				.71	288 .69	1 .77	4	0 .76	2	−0.9	rg, rg	600	..	yells.	H c
				.81	286 .30	1 .44	5	0 .92	2	+2.1	rg, g	500	..	yells.	H f
				78.76	285 .66	0 .87	4	..	..	+1.6	rb, vb	500	..	yells.	H b
				.80	291 .24	2 .82	4	..	..	+0.4	vb, b	300	..	pl. yells.	c
	Med. & C.			77.81	75 .34	0 .30	4	10 .91	2	+2.2	vg, vg	200	(7)	viol.	H f
P. XX. 429, .	2741	55	+49 58	76.64	28 .15	0 .45	6	1 .92	4	−0.4	b, rb	500	..	grnsh., orng.	
				.93	29 .07	0 .67	6	1 .95	3	+2.3	m, g	500	..	..	f
				82.68	32 .83	0 .43	4	1 .72	4	+0.6	rb, g	200	6.8, 7.2	whs.	H
				.68	32 .10	0 .65	4	..	..	+0.1	m, rg	200	..	..	H
				.78	31 .68	1 .32	4	1 .82	4	−0.1	m, g	200	..	yells.	
				.84	31 .75	0 .45	4	1 .86	4	+1.1	g, g	400	6.5, 7.4	yelsh. wh., blsh. wh.	H
	2744	57	+ 1 4	79.70	173 .20	1 .03	3	1 .33	2	−0.5	rg, rg	300	6.7, 8.2	orng., yell.	c
				.76	171 .53	0 .70	4	1 .26	2	−0.8	b, vb	300	..	..	R
				.77	172 .23	0 .55	3	1 .46	2	+0.7	m, m	300	7.6, 8.1	yelsh., whs.	f
61 Cyg., . .	2758	21 1	+38 6	76.60	115 .59	0 .45	6	..	..	+0.6	m, g	500	(5, 6)	..	
				.62	115 .47	0 .37	6	..	..	−1.9	g, g	300	..	..	
				77.61	116 .54	0 .35	4	19 .74	3	−1.1	m, m	200	..	orng., orng.	H
				.68	116 .74	0 .45	4	19 .66	3	+1.1	m, rg	300	..	..	C
				78.54	115 .69	0 .52	4	19 .75	2	−2.0	m, vg	100	..	yells.	c
				.55	116 .71	0 .23	4	19 .88	2	−1.2	rg, g	400	..	orng., yell.	
				.64	117 .06	0 .30	4	19 .61	2	+1.2	rb, m	500	..	orng., blsh. wh.	H
				.68	117 .59	0 .13	4	19 .80	2	+0.9	rg, rg	200	..	orng., redsh.	c
	2760	1	+33 37	76.60	224 .09	0 .35	6	..	..	+1.1	g, g	500	(7, 8)	wh., blsh.	d
				.64	224 .59	0 .82	6	8 .77	3	−0.2	m, rg.	500	..	wh., viol.	
				.70	225 .03	0 .38	8	8 .49	6	−0.5	rg, rg	400	..	yell., viol.	
	2771	3	+70 14	79.70	214 .85	0 .17	3	..	..	−1.5	vb, vg	300	9.0, 10.0	..	
				.73	214 .67	1 .27	4	2 .81	2	+0.9	m, rg	200	8.5, 8.6	whs.	R c
	H.I. 47	6	−15 32	80.61	323 .33	1 .42	4	..	..	+0.4	vb, rb	200	(8,8)	..	
				.61	321 .94	0 .63	3	..	..	+0.1	b, b	200	..	..	H o
	2776 AB.	9	−10 48	76.95	51 .42	0 .42	4	84 .61	5	+2.0	rb, g	300	(8, 9)	..	
				.95	51 .05	0 .39	6	86 .92	3	+1.8	vb, g	400	..	..	
	2776 BC.			76.95	338 .17	2 .70	6	..	..	+1.8	vb, g	400	(10)	..	
	[437]	16	+31 55	79.76	52 .95	0 .40	3	1 .61	2	−0.8	rb, m	300	7.7, 8.2	yell., pl. yell.	
				.76	49 .98	1 .12	4	1 .34	2	−0.4	m, m	500	7.1, 7.4	yelsh., yelsh.	f
				.77	51 .40	1 .35	4	1 .60	2	+0.7	m, rb	300	7.5, 7.8	whs.	f
20 Peg. B, . .	2799	23	+10 34	76.64	310 .07	0 .48	5	1 .73	3	0.0	m, m	500	(7, 7)	grnsh., grnsh.	
				.78	313 .47	1 .43	6	1 .71	3	−0.4	m, vb	500	..	..	
				77.71	310 .42	0 .42	4	1 .51	1	−0.4	g, g	800	..	whs.	H
				.71	312 .61	0 .87	4	1 .27	2	−1.1	rg, rg	600	..	wh., pl. yell.	H c
				.80	314 .98	2 .07	7	1 .50	2	−0.1	vb, vb	400	..	..	H c

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
20 Peg. B., . .	2799	21h 23m	+ 10° 34′	78.55	312°.09	0°.57	4	1″.30	2	−1.1	g, g	400	..	whs.	
				.64	310 .61	1 .80	4	1 .44	2	+0.3	rg, rg	400	..	pl. yells.	H
				.68	309 .68	1 .66	5	1 .32	2	+0.2	m, m	200	..	yelsh. whs.	c
	2807	24	+ 82 0	79.01	316 .75	1 .85	2	..	..	+4.6	rg, g	600	(8, 8)	..	H R c
				.04	319 .43	0 .75	4	..	..	+4.0	rb, vg	200	..	..	F H o
29 Peg. B, . .	2804	27	+ 20 11	76.60	328 .64	0 .53	6	3 .09	3	+0.4	g, g	500	(7, 8)	..	
				.70	324 .54	0 .54	10	2 .83	3	−0.3	m, g	500	..	..	
				.76	327 .54	0 .32	5	3 .24	4	−0.5	rg, rg	600	..	..	
μ Cyg., . . .	2822	38	+ 28 12	75.93	116 .45	0 .65	8	..	..	+1.1	..	T	(4, 5)	..	
				.94	118 .80	1 .38	10	..	..	+2.7	..	T	..	..	
				.97	117 .33	0 .78	12	..	..	+2.3	..	T	..	yell., viol.	
				77.68	118 .38	1 .76	5	3 .94	2	+0.8	rb, m	300	..	orng., viol.	C
				.71	117 .14	0 .95	4	3 .66	2	−0.2	g, rg	600	..	gold., pl. yell.	H
				78.80	119 .22	1 .64	5	3 .67	2	+1.2	rb, rg	200	..	yell., redsh.	c
				.85	119 .18	0 .82	4	3 .72	2	−0.4	m, rg	200	..	yell., bl.	H c
	2837	43	+ 82 22	79.76	301 .65	0 .15	4	2 .17	2	−1.9	m, rg	500	7.7, 8.1	yelsh. whs.	R
				.81	300 .85	0 .27	4	..	..	+2.4	b, vb	300	..	..	o
				.87	301 .33	0 .47	4	2 .48	2	+0.9	m, vb	200	..	whs.	c
146 Ceph. B., .	2836	46	+ 66 13	79.73	153 .05	0 .65	4	11 .87	2	+0.7	m, rg	200	6.7, 9.6	yell., pur.	R c
				.73	154 .10	0 .50	4	10 .89	2	−0.7	m, m	300	7.2, 10.8	yell., pur.	R c
	2843	48	+ 65 11	79.01	139 .37	0 .58	4	2 .35	2	+3.7	rg, rg	200	..	yelsh., whs.	
				.04	140 .74	0 .32	5	2 .37	2	+3.3	g, g	200	..	yells.	H
				.66	138 .33	1 .37	4	2 .28	2	−1.2	g, rg	300	..	pl. yells.	
				.66	138 .87	0 .27	4	2 .13	2	−0.3	rb, rg	200	7.0, 7.0	yelshs.	
	2847	51	− 4 5	79.76	306 .05	0 .87	3	1 .28	2	−0.7	m, rb	500	7.8, 8.3	whs.	f
				80.61	300 .80	1 .40	3	..	..	+0.2	b, m	200	8.3, 8.3	yelsh. whs.	
				.65	303 .80	0 .53	3	1 .06	2	+0.3	b, m	300	8.0, 8.2	whs.	H R
				.70	308 .19	0 .62	4	1 .22	2	−1.0	rb, b	600	7.8, 7.9	whs.	H R c
				.80	306 .01	1 .75	4	1 .27	2	−0.5	rb, rg	300	7.8, 7.9	whs.	
	2853	57	+ 67 22	79.73	187 .03	1 .37	4	3 .85	2	+1.1	rb, rg	200	7.5, 9.7	yell., pur.	R c
ξ Ceph., . .	2863	22 0	+ 64 0	79.74	284 .18	0 .97	4	6 .35	2	−0.8	rg, rg	200	5.5, 7.5	yell., blsh.	c
				.76	285 .05	0 .70	4	5 .43	2	−2.0	m, rg	500	5.6, 6.7	yell., blsh.	R
				.77	283 .65	0 .15	3	..	..	+2.5	rb, rg	200	..	..	F f d
				.78	283 .58	0 .63	4	6 .35	2	−0.6	rb, m	200	5.0, 6.5	pl. yell., bl.	c
P. XXII. 33, .	2877	8	+ 16 35	77.70	349 .62	0 .37	4	10 .19	3	+1.5	rg, rg	500	(6, 10)	yell., viol.	H f
				.71	350 .54	0 .14	3	9 .80	2	−0.7	rg, rg	600	..	orng., blsh.	H c
148 Peg. B., .	2878	8	+ 7 19	82.69	130 .95	1 .08	4	1 .09	4	−1.5	b, m	400	6.8, 7.9	..	H
				.70	128 .98	5 .17	4	0 .99	4	−0.1	vb, rb	300	..	..	H
				.78	129 .48	1 .83	4	..	..	−0.3	b, rb	300	..	..	
				.82	130 .83	0 .87	4	1 .47	4	−0.3	b, m	600	..	..	H
	2881	8	+ 28 55	79.76	102 .95	0 .80	3	..	..	−1.4	b, b	300	7.3, 7.9	yells.	o

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
148 Peg. B., .	2881	22h 8m	+ 28° 55′	79.77	103°.31	0°.48	5	1″.46	2	− 1.4	g, g	300	6.7, 7.4	whs.	f
				.87	103 .55	0 .65	4	1 .66	2	+ 0.7	rg, vb	200	..	yelsh. wh., blsh. wh.	b c
				.92	101 .62	0 .67	4	1 .68	2	+ 0.6	rg, m	200	7.5, 8.4	yelsh. wh., yell.	
189 Ceph. B., .	2883	8	+ 69 30	79.01	253 .13	0 .28	4	14 .54	2	+ 3.7	rg, rg	200	(6, 8)	yell., pur.	
				.04	253 .95	0 .25	4	14 .62	2	+ 3.5	g, vg	200	..	yell., pur.	H
	2895	15	+ 24 18	77.71	28 .54	0 .70	4	..	..	− 0.4	rb, b	600	(8, 10)	..	F c
				.72	25 .64	0 .60	5	6 .48	2	- 0.7	m, rg	300	..	yell., viol.	H c
				.80	27 .24	0 .47	6	6 .72	4	− 0.2	g, g	200	..	yell., bl.	H c
				.80	26 .94	0 .60	4	6 .98	2	+ 2.8	rb, m	300	..	yelsh., viol.	H o
	[470]	17	+ 66 24	79.74	356 .83	0 .97	4	3 .32	2	− 0.4	rb, rg	200	8.0, 11.0	pl. yell., pur.	R c
				.76	359 .33	0 .47	4	3 .68	2	− 2.0	m, m	500	7.4, 10.2	yelsh., pur.	f
				.90	356 .28	0 .23	4	3 .79	2	− 0.3	m, m	200	7.5, 9.0	..	
				80.74	358 .24	0 .63	4	4 .02	2	− 2.1	rb, m	200	..	..	f c
				.80	357 .26	0 .77	4	3 .23	2	− 1.0	vb, m	200	7.4, 8.7	pl. yell., pur.	
33 Peg., . .	2900 AB	18	+ 20 13	76.76	180 .16	1 .14	8	1 .83	4	− 0.4	g, g	600	(6.9)	..	
				.83	178 .30	1 .13	6	1 .76	2	− 0.1	rg, g	200	..	..	
				.95	178 .13	1 .73	7	..	..	+ 1.3	b, g	600	..	..	
	2900 AC			76.76	330 .28	0 .22	5	62 .63	6	− 0.4	g, g	600	(8)	..	
				.83	330 .48	0 .18	4	62 .49	5	− 0.1	rg, g	200	..	..	
				.95	330 .17	0 .22	3	63 .06	5	+ 1.3	b, g	600	..	..	
	2903	18	+ 66 4	79.01	93 .97	0 .10	3	4 .34	4	+ 3.8	rg, g	200	(7, 8)	yelsh., blsh.	
ζ Aquar., . .	2909	22	− 0 40	75.94	333 .87	0 .72	10	..	..	+ 0.9	..	T	..	..	
				.97	340 .76	1 .43	15	..	..	+ 1.1	b, b	T	..	..	
				.97	337 .22	0 .77	12	..	..	+ 0.9	..	T	..	..	
				.99	339 .86	0 .80	10	..	..	+ 1.9	..	T	..	..	
				76.00	335 .79	1 .79	10	..	..	+ 3.0	b, b	T	..	..	
				.63	334 .83	0 .92	10	3 .80	4	− 0.5	b, rb	300	..	..	
				·64	330 .98	1 .29	10	3 .19	5	− 0.3	vb, m	400	..	yelsh., yelsh.	
				.70	332 .79	0 .74	8	..	..	+ 2.1	vb, b	300	..	..	
				.76	336 .33	0 .97	7	3 .57	5	+ 0.1	rb, vb	500	..	..	c
				.92	335 .42	1 .42	6	..	..	+ 0.6	vb, g	400	..	..	c
				.93	333 .63	0 .70	6	3 .48	4	+ 0.6	g, rg	500	..	..	
				.93	333 .85	0 .75	6	3 .28	4	+ 0.6	rb, b	500	..	..	
				77.61	333 .77	0 .37	4	3 .85	4	+ 0.2	vb, rb	200	..	yells.	H
				.68	334 .99	0 .95	6	3 .62	3	+ 0.5	b, m	300	..	pl. yells.	C
				.81	335 .72	1 .43	4	3 .46	2	+ 1.4	rg, rg	200	..	yells.	H f
				78.55	332 .33	0 .67	4	3 .43	2	− 1.9	m, rg	400	..	whs.	
				.76	335 .54	0 .87	4	3 .22	2	+ 0.6	m, vb	100	..	..	H b
				.80	332 .41	0 .80	4	..	..	+ 0.1	vb, rb	100	..	..	c
				.90	334 .05	0 .25	4	3 .41	2	− 0.2	rg, rg	300	..	pl. yells.	H
				.90	334 .52	0 .28	3	3 .19	2	− 0.3	g, rg	500	..	..	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
ζ Aquar., . .	2909	22h 22m	− 0° 40′	78.91	334°.98	0°.48	4	3″.24	2	0.0	rg, g	200	..	pl. yells.	H
				79.60	332 .55	0 .40	4	..	..	−1.8	b, b	300	..	..	o
				.73	333 .18	0 .65	4	3 .45	2	+0.5	m, rg	200	..	pl. yells.	R c
				.74	332 .53	0 .50	4	..	..	−0.4	rb, m	200	..	..	o f
				.76	331 .86	0 .37	3	3 .17	2	−0.9	m, m	500	..	grnsh. yells.	f
				.77	333 .28	1 .00	4	3 .25	2	+1.3	rg, rg	300	5.0, 5.0	yells.	f
	2910	22	+22 55	82.69	341 .68	1 .42	4	5 .42	4	−1.5	m, m	400	7.3, 7.9	..	H
				.78	342 .00	0 .35	4	5 .26	4	−0.3	m, m	300	7.9, 8.4	whs.	
				.82	340 .65	1 .50	4	5 .42	4	−0.2	rb, rg	400	..	..	H
37 Peg., . .	2912	24	+ 3 48	75–77	comp.	invis.	..	..	..	..	..	..	(6, 7)	..	
	2915	26	+16 43	79.76	154 .43	0 .58	4	11 .91	2	−0.3	m, m	300	7.5, 8.0	whs.	
				.78	154 .62	0 .47	4	12 .41	2	−0.6	m, m	200	8.2, 8.3	whs.	c
				.88	155 .71	0 .19	5	12 .40	4	+0.6	m, b	200	7.8, 8.7	yelsh., blsh.	c
				.92	154 .10	0 .50	4	..	..	+0.8	rg, b	200	7.8, 7.8	whs.	
	2928	33	−13 16	76.95	315 .48	1 .53	8	..	..	+1.4	vb, g	600	(8, 8)	..	F
				.95	317 .89	1 .44	7	..	..	+0.9	vb, m	500	..	..	F
	2934	36	+20 48	79.76	159 .35	1 .00	4	..	..	−0.3	rb, g	200	7.0, 9.0	yelsh., wh.	f
				80.67	160 .22	1 .55	4	..	..	+0.7	vb, vb	300	..	..	H R b
				.70	151 .23	3 .30	3	..	..	−1.3	vb, vb	300	..	..	? H R c
				.80	161 .68	2 .87	4	..	..	−1.0	b, m	300	8.0, 9.4	yell., pur.	
	2941	40	+18 36	82.69	266 .20	0 .80	6	10 .59	4	−1.4	m, rb	300	6.8, 10.2	yell., pur.	H R
				.79	268 .28	0 .97	4	10 .95	2	0.0	b, rb	200	..	..	H c
				.82	266 .40	1 .45	4	..	..	−0.3	b, g	400	..	..	H
P. XXII. 219,	2944 AB	41	− 4 53	76.78	252 .99	1 .15	6	..	..	−0.2	rb, vb	500	(7, 8)	..	
				.83	253 .55	0 .07	4	3 .66	3	−1.1	m, rb	500	..	..	
				.93	253 .08	0 .34	5	4 .05	4	+1.2	b, m	500	..	..	F
	2944 AC			76.78	141 .10	0 .00	3	48 .68	2	−0.2	rb, vb	500	(8)	..	
	2947	45	+67 53	79.01	67 .97	0 .43	3	..	..	+3.6	rg, rg	200	(7, 7)	whs.	
				.04	69 .20	0 .45	4	3 .59	2	+3.1	rg, g	200	..	yelsh., yelsh.	H
				.66	68 .82	0 .38	5	4 .49	2	−2.0	g, rg	300	..	whs.	
	2948	45	+65 53	79.01	6 .15	1 .70	4	2 .93	2	+5.2	rg, g	200	(7, 9)	wh., pur.	
	2963	51	+75 43	79.04	354 .25	0 .97	4	..	..	+3.5	rb, rg	200	(8, 9)	..	F H o
	2965	52	+72 11	79.73	217 .03	0 .97	4	3 .04	2	+0.6	m, rg	200	(8, 9)	..	R c
	[483]	53	+11 6	79.76	207 .83	2 .17	4	0 .90	2	−0.2	m, m	300	6.5, 8.5	..	
				80.69	225 .14	5 .10	4	..	..	−0.7	vb, rg	200	..	..	? H R
				.81	226 .12	0 .87	4	..	..	−0.4	vb, b	200	..	..	?
				.83	221 .22	2 .52	3	..	..	−0.2	vb, m	400	..	..	? H c
				.91	221 .74	6 .55	4	..	..	−0.2	vb, vb	200	..	..	c
	2971	55	+77 51	79.04	5 .40	0 .40	4	5 .26	2	+2.8	rg, m	200	7.2, 8.5	yell., pur.	H o
	2976	23 1	+ 5 55	77.71	186 .84	0 .35	4	16 .73	2	−0.9	g, g	600	(8, 9)	whs.	H f
				.71	186 .07	0 .17	4	16 .87	2	−0.1	rg, rg	400	..	..	F H o

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
P. XXII. 306,	2978	23h 1m	+ 32° 9′	82·68	145°.70	0°.87	3	..	..	h. 0.0	rb, m	400	6.5, 7.7	..	H c
				.68	145 .68	0 .47	4	8″.47	4	− 1.8	rg, rg	400	6.4, 7.6	..	H
				.69	145 .02	0 .12	4	8 .30	4	− 1.4	m, m	600	..	yelsh. wh., pur.	H
				.70	145 .10	0 .07	4	8 .18	4	− 0.6	rb, m	300	..	..	H
				.78	144 .48	0 .58	4	8 .32	4	− 0.1	m, m	300	6.5, 7.4	yelsh., pur.	
				.82	145 .42	0 .10	4	8 .30	4	− 1.4	m, m	400	6.7, 7.9	yelsh. wh., blsh.	H
	2984	3	+ 69 58	79.73	295 .53	1 .77	4	4 .59	2	− 0.8	m, rg	200	7.7, 10.0	yell., blsh.	R c
				.73	296 .15	..	1	..	..	− 1.0	m, m	300	..	..	R c
				.74	293 .72	0 .92	4	4 .35	4	− 2.0	m, m	200	7.2, 9.5	yell., pur.	
	2996	9	+ 81 8	79.66	109 .78	0 .17	4	4 .86	2	− 2.1	m, m	300	8.2, 8.5	whs.	c
o Ceph., . .	3001	14	+ 67 25	77.71	191 .44	0 .40	4	2 .29	2	− 1.9	rg, g	600	(5, 8)	yell., viol.	H c
				.72	191 .82	0 .47	4	2 .46	2	− 3.2	m, m	400	..	yell., viol.	H c
				.81	191 .90	0 .92	5	2 .69	2	+ 2.5	rb, rg	300	..	yell., bl.	H c
	3006	15	+ 34 45	76.95	169 .39	1 .16	7	..	..	+ 2.2	b, g	600	(8, 9)	..	F
				.95	169 .80	1 .27	6	5 .14	2	+ 0.8	m, rg	500	..	..	
P. XXIII. 69,	3008	17	− 9 9	76.83	257 .11	0 .44	7	4 .79	5	− 0.6	m, m	500	(7, 8)	yell., blsh.	
				.93	257 .90	0 .57	6	5 .24	2	+ 2.4	m, g	500	..	..	f
	[500]	32	+ 43 48	80.81	325 .84	2 .25	2	..	..	− 0.7	vb, vb	300	(6, 7)	..	?
				.83	50 .14	6 .75	2	..	..	− 0.5	vb, m	400	..	..	? H c
				.84	321 .47	0 .83	4	0 .49	2	− 0.3	m, rg	600	..	whs.	H c
	So. 356	40	− 19 20	79.76	139 .11	0 .32	5	5 .77	2	− 0.2	b, rb	300	6.5, 8.0	..	R
				.77	140 .32	0 .67	3	..	..	− 0.1	m, m	300	..	..	f
	3041 BC	41	+ 16 22	82.70	182 .08	0 .27	4	3 .27	4	− 0.8	m, rb	300	7.5, 7.6	whs.	H
				.78	182 .22	0 .53	4	3 .45	4	− 0.3	vb, b	300	7.3, 7.5	whs.	
				.82	182 .55	1 .40	4	3 .45	4	− 0.1	rg, rg	400	..	whs.	H
				.82	183 .05	0 .65	4	..	..	− 1.7	vb, m	400	7.9, 8.0	whs.	H
	A & Med.			82.82	350 .28	0 .37	3	67 .50	4	− 1.5	rg, g	200	7.5	wh.	H
	3046	50	− 10 12	79.76	245 .25	1 .20	4	3 .01	2	− 0.5	rb, rb	300	..	..	
				80.84	245 .82	0 .57	4	3 .61	2	− 0.2	rg, rg	200	7.8, 8.3	whs.	R c
				.88	245 .62	1 .22	4	..	..	− 0.6	vb, vb	200	..	..	c
				.91	247 .14	1 .20	4	3 .68	2	− 0.3	rb, rg	200	7.9, 8.2	whs.	
37 And. B., .	3050	53	+ 33 3	76.78	203 .97	0 .49	7	3 .14	5	− 2.3	rg, b	300	(6, 6)	yelsh., yelsh.	
				.83	200 .78	0 .62	4	3 .05	4	− 3.0	rg, g	500	..	..	
				.93	201 .76	0 .73	7	3 .04	3	+ 0.7	g, rg	500	..	..	f
	3052	56	+ 70 40	79.04	8 .22	0 .34	4	33 .99	2	+ 2.7	b, rg	200	(7, 8)	..	F H o
	3053	56	+ 65 22	79.01	69 .15	0 .45	4	15 .12	2	+ 4.5	rg, rg	200	(6, 7)	orng., bl.	c
	3060	59	+ 17 23	78.85	121 .61	1 .55	4	..	..	− 0.3	rb, rg	400	..	whs.	H F c
				79.88	118 .73	2 .33	5	3 .97	2	+ 0.3	b, b	200	6.9, 9.2	yelsh., pur.	b
				.90	122 .03	1 .27	4	3 .74	2	− 0.9	b, rb	200	7.2, 8.6	yell., viol.	c
				82.70	119 .70	0 .67	3	3 .78	4	− 0.1	m, m	300	7.8, 8.1	whs.	H
	3061	59	+ 17 10	76.78	145 .09	0. 49	8	8 .27	4	− 0.9	rg, vb	400	(8, 8)	..	

Name.	No.	R. A.	Decl.	1800 +	Pos.	m.	n.	Dist.	n.	t.	D. S.	Power	Mags.	Colours.	Notes.
										h.					
37 And. B., .	3061	23h 59m	+ 17° 10′	76.83	146°.21	0°.32	5	7″.57	3	− 1.8	m, m	500	..	..	
				77.71	146 .04	0 .50	4	7 .54	2	− 1.1	g, rg	600	..	..	H
				.81	146 .37	0 .32	4	7 .64	2	+ 0.8	m, rb	300	..	..	H
				78.90	147 .24	0 .23	4	7 .59	2	− 0.8	g, g	200	..	whs.	H
				.94	147 .63	0 .58	4	7 .44	2	+ 1.3	g, g	300	..	wh., redsh. wh.	
	3062	24 0	+ 57 44	76.83	296 .77	0 .77	6	1 .74	3	− 0.7	rg, g	500	..	..	
				.83	294 .15	1 .10	6	1 .46	3	− 2.7	m, g	500	..	..	
				.95	292 .83	4 .63	6	..	..	+ 2.5	vb, rg	500	..	..	o
				77.71	297 .72	0 .62	4	1 .45	2	− 0.8	rg, rg	600	..	pl. yell., wh.	H
				.71	298 .12	1 .07	4	1 .63	2	− 1.7	b, rb	600	..	..	F H o
				.72	295 .64	0 .75	4	1 .47	2	− 3.7	rb, m	400	..	..	H c
				.81	296 .80	2 .72	5	1 .42	2	+ 2.1	m, m	300	..	yell., wh.	H c
				78.85	299 .41	0 .55	4	1 .35	2	− 2.2	m, rb	400	..	yell., pl. red.	H c
				.88	304 .29	1 .32	4	1 .42	2	− 0.9	rg, rg	300	..	pl. yell., yell.	c
				.90	301 .04	1 .52	4	1 .35	2	− 1.5	g, g	300	..	yelsh., yell.	H
				.91	303 .63	1 .42	4	1 .24	2	− 1.2	g, g	200	..	pl. yell., yell.	H
				.94	303 .03	0 .68	4	1 .61	2	+ 1.8	rg, rg	300	..	gold., redsh.	o
				79.76	303 .08	0 .58	4	1 .31	2	− 1.1	g, m	300	6.9, 7.8	yells.	
				.77	303 .27	0 .82	4	1 .35	2	− 2.5	rg, g	300	6.7, 7.8	orng., pl. yell.	
				80.83	306 .22	0 .77	3	1 .51	2	− 0.3	rb, rg	400	7.5, 8.2	pl. yell., redsh.	H c
				.88	303 .19	2 .68	5	1 .31	2	+ 2.1	b, rb	200	6.8, 7.5	..	
				.91	307 .74	1 .20	4	1 .72	2	− 1.6	g, g	300	6.5, 7.8	yells.	
				.92	308 .26	0 .87	4	1 .67	2	− 0.6	g. rb	200	6.8, 7.6	yell., redsh· yell.	c
				82.69	307 .98	1 .37	4	1 .55	4	− 0.7	m, b	600	..	whs.	H c
				.81	309 .70	2 .15	4	..	..	0.0	g, vg	200	..	..	H
				.87	306 .56	1 .37	4	1 .54	4	+ 1.0	m, g	200	..	..	H o
				.93	308 .31	0 .78	4	1 .46	4	− 0.8	m, rg	500	6.8, 7.6	..	H c